The Impact of Relative Institutional Challenge on the Process of Firms' Internationalization

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A Thesis

In

John Molson School of Business

Presented in Partial Fulfillment of the Requirements
For the Degree of
Doctor of Philosophy in Business Administration
Concordia University
Montreal, Quebec, Canada

August 2016

CONCORDIA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

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Entitled: The Impact of Relative Institutional Challenge on the Process of Firms' Internationalization

and submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy (Business Administration)

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ABSTRACT

The Impact of Relative Institutional Challenge on the Process of Firms' Internationalization

Ehsan Derayati,

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In increasingly turbulent and competitive international environments, having a comprehensive and proper understanding of institutional environments at the country level is fundamental for success in international business. Many studies have examined how environmental and institutional factors affect the internationalization decisions of firms, and used different constructs for showing those institutional factors.

This dissertation demonstrates a comprehensive view of the challenge that firms perceive in countries' institutional environment by developing a new construct called Relative Institutional Challenge and testing its effects on firms' internationalization process.

For this purpose, this dissertation is structured in two main sections. In the first section, the construct of Relative Institutional Challenge was developed. Relative Institutional Challenge considers the effect of institutional differences between host and home countries (institutional distance), the state of institutionalization of the host country (institutional development) and rate of institutionalization of the host country (institutional uncertainty) simultaneously. Using extensive data from databases such as Global Competitiveness Report, Fragile States Index and Worldwide Governance Indicators, an index for measuring Relative Institutional Challenge was developed.

In the second part of this thesis, the effects of the Relative Institutional Challenge (RIC) on firms' internationalization process were investigated. Three hypotheses were developed and validated. The hypotheses were demonstrating that the effect of the RIC, asthe independent variable on firms' ownership structure and the variation of firms' ownership percentage as the dependent variables. Empirical testing was performed based on an extensive dataset on

international Joint Ventures (JVs) and acquisitions extracted from SDC Platinum dataset. The obtained results show the significant relationship between the level of institutional challenges that firms perceive, measured through the RIC Index, and the firms' internationalization process, measured by firms' ownership percentage and variance of ownership structure. Also, the moderating effect of firm size on this relationship was supported.

Thèse au doctorat en Administration des Affaires
John Molson School of Business, Université Concordia

L'impact du défi institutionnel relatif sur le processus de l'internationalisation des entreprises
Ehsan Derayati, 2016

RÉSUMÉ:

Dans un environnement international de plus en plus turbulent et concurrentiel, avoir une compréhension complète et correcte des environnements institutionnels au niveau des pays est fondamental pour le succès dans les affaires internationales. De nombreuses études examinent comment les facteurs environnementaux et institutionnels influent sur les décisions d'internationalisation des entreprises, et différentes théories ont été élaborées ou utilisées pour montrer ces facteurs institutionnels.

Cette thèse présente une vue d'ensemble sur le défi que les entreprises perçoivent dans l'environnement institutionnel des pays en développant un nouveau concept appelé Défi Institutionnel Relatif tout en examinant ses effets sur le processus d'internationalisation des entreprises.

À cet effet, cette thèse est structurée en deux parties principales. Dans la première partie, le concept du défi institutionnel relatif a été développé. Le Défi institutionnel relatif considère l'effet des différences institutionnelles entre le pays d'accueil et le pays d'origine (distance institutionnelle), l'état d'institutionnalisation du pays hôte (développement institutionnel) et le degré d'institutionnalisation du pays d'accueil (incertitude institutionnelle) simultanément. En utilisant un vaste répertoire de données provenant de bases de données telles que le Rapport Mondial sur la Compétitivité, L'Indice des États Fragiles et les Indicateurs Mondiaux de la Gouvernance, un indice de mesure du défi institutionnel relatif a été élaboré.

Dans la deuxième partie de cette thèse, les effets du défi relatif institutionnel sur le processus d'internationalisation des entreprises ont été étudiés. Trois hypothèses ont été développées et validées, démontrant que les effets du défi institutionnel relatif est la variable indépendante, alors que le pourcentage de propriété étrangère et la variation de ce pourcentage sont les variables dépendantes.

Des tests empiriques ont été effectués utilisant un vaste répertoire de données sur les co-entreprises, ainsi que et des informations sur les acquisitions internationales extraites de la base de données de SDC Platinum. Les résultats obtenus montrent la relation significative entre le niveau des défis institutionnels que les entreprises perçoivent, mesuré avec le rapport d'indice de défi institutionnel, et le processus d'internationalisation, mesuré par le pourcentage de propriété des entreprises et la variance de la structure de propriété. De plus, l'effet modérateur de la taille des entreprises sur cette relation a été prouvé.

Table of Contents

List of Figures:

List of Tables:

1 Introduction

1.1 Theory

In increasingly turbulent and competitive international environments, having a comprehensive understanding of a country's institutional environment is fundamental to success in international business. Many studies examine how environmental and institutional factors affect the strategic decisions of firms, especially on internationalization strategies. (Gaur & Lu, 2007; Khanna & Palepu, 2000; Peng et al., 2008). Previous research has also shown the role of country conditions as determinants of firm performance by explaining opportunities and challenges, which Multi-National Companies (MNCs) face in different host countries (Gaur & Lu, 2007; Pattnaik, 2007; Peng et al., 2008).

One of the fundamental arguments in this area stems from institutional theory, which proposes that firms be embedded in country-specific institutional arrangements (Busenitz, Gomez, & Spencer, 2000). The use of institutional theory is growing in all areas of management research because of its ability to capture issues that the concept of culture cannot (Busenitz et al., 2000; Hoskisson, Eden, Lau, & Wright, 2000). From the neo-institutional perspective (North, 1990; Scott, 2001), a country's institutional environment has a direct effect on firms' strategies. From this point of view, institutional environment consists of relatively strong rules, social norms, and cognitive structures. All of these factors set a framework for market transactions by defining both the ''rules of the game'' (North, 1990, p. 1) and firms' legitimacy conditions (Meyer & Rowan, 1977).

Institutional theory has been used as one of the main theories to explain different phenomena in international business (IB) research as well (Kostova & Roth, 2002; Peng, 2003; Peng et al., 2008). Institutional theorists view the institutional environment as a key determinant of firm behaviour and strategy, and the relationship between institutions and companies is considered to be a dynamic interaction leading to different strategic choices by firms (Kostova & Roth, 2002; Peng, 2003; Peng et al., 2008).

Previous research shows that institutional environments influence firms' strategic activities in different areas such as international strategic choices. The institutional context is composed of informal and formal institutions (North, 1990). Institutional contexts will affect several important outcomes such as the level and process of innovation in a given country (Bartholomew, 1997), foreign partnership activities, differences in entrepreneurial activities (Busenitz et al., 2000), mode of entry and ownership strategies (Brouthers, 2002; Davis et al., 2000; Gaur & Lu, 2007; Uhlenbruck et al., 2006), practice adoption, and strategic alliance partner selection (Hitt, Ahlstrom, Dacin, Levitas, & Svobodina, 2004).

Researchers in institutional theory widely recognize that internationalized firms face institutional differences in host and home countries (Bartlett & Ghoshal, 1999; Kostova, 1999; Oliver, 1991). Several studies examine the country-specific influences on the international activities of firms at different levels. The literature on institutional profiles has been predominately used for explaining international management phenomena (Kostova, 1999). A segment of this research studies the national advantages and disadvantages of host or home countries. From an institutional perspective, these studies explore how the institutional profile of a particular host or home country can affect the international activities of the firm (Bénassy-Quéré, Coupet, & Mayer, 2007; Chan, Isobe, & Makino, 2008). Collectively, these studies focus on differences in the

availability of 'naturally inherited' production factors (e.g., labor, land, capital) in host countries (Dunning, 1980, 2000) or the competitive advantages of home countries. The latter group is derived from created capabilities, especially regarding technological and innovative capabilities (Chan et al., 2008; Porter, 1990).

Another aspect of this literature focuses on the *relative* institutional profiles of host and home countries. Here, the main construct measures the similarity of environments of the host and home countries (Gaur & Lu, 2007; Schwens et al., 2011; Xu & Shenkar, 2002). Most of these studies examine the distance between the institutional environments of the home country and those of the host country. Building on Scott's (1995) three pillars of institutions, Kostova (1999) introduced the construct of institutional distance to expand on the concept of home and host country differences beyond cultural differences. This latest strand of research has been useful for explaining institutional differences and their effect on international business. However, recently some scholars have argued for the need to broaden the concept further. They focus on issues such as lack of process orientation, neglecting degree, process of institutionalization (Phillips, Tracey, & Karra, 2009), and the exclusion of asymmetry and direction in earlier versions of institutional distance operationalization (Chan et al., 2008; Hakanson & Ambos, 2010; Hernández & Nieto, 2015). Phillips et al. (2009) contend that, in the process of internationalization, firms encounter not only different institutions but also institutions with various states of institutionalizations. The authors argue that institutional differences fail to capture the difference in the level of institutionalizations, especially in developing economies where firms might encounter institutions that "while similar to the home country – are only weakly entrenched" (Phillips et al., 2009, p. 341).

1.2 Contributions and Objectives

In recent years, the international environment has undergone severe change and uncertainty following watershed events such as the attacks on the World Trade Center in New York City in 2001. As the result of shifts in the political, economic and even cultural settings within international institutions, the issue of uncertainty and the effects of different shocks and changes in institutional contexts have become crucial. Some events, such as the US economic recession in 2008 and changes in some historically stable governments, show us that uncertainty in institutional contexts might occur regardless of a country's level of development.

The objective of this research is to represent a comprehensive view of institutional challenges at country levels and their effects on firms' internationalization processes. Answering concerns provided by scholars such as Phillips et al. (2009), this dissertation extends the literature on institutional differences between countries and their effect on firms' international behavior by developing a comprehensive construct. The newly developed construct encompasses institutional differences between countries, the level of institutionalization of the countries and the level of uncertainty within countries. This thesis covers two main research questions to accomplish this objective:

1) What do firms perceive as the institutional challenge in a particular host country when making internationalization decisions?

2) What are the impacts of the Relative Institutional Challenge on firms' international strategic decisions (specifically regarding the entry mode)?

The current thesis provides three main groups of contributions. The first set of contributions offers a comprehensive view of the institutional environment and develops a new institutional

construct called ***Relative Institutional Challenge (RIC).*** The RIC considers the effect of institutional difference (institutional distance), the state of institutionalization (institutional development), and the rate of institutionalization (institutional uncertainty) simultaneously. It addresses one of the primary shortcomings of the institutional distance view, as described above. This construct enriches our understanding of the effects of institutional profiles in the internationalization process by including absolute characteristics of the host countries and factor of differences between host and home countries simultaneously. This approach provides a more precise understanding of the real effects of institutional settings of host countries, considering effects at home and host countries. Also, aligned with the latest strand of research on institutional distance, this thesis develops a construct that takes into account the notion of direction beyond institutional distance. It addresses a major shortcoming on the neglected effects of asymmetry and direction in mainstream institutional distance research. Furthermore, the new construct encompasses both factors of institutional change and institutional state at the same time. Thus, it is a novel and new perspective to the issue. This construct distinguishes between two institutional constructs of institutional development and institutional uncertainty, which lack clarity in the management literature, by exploring their differences, effects, and relationship.

The second category of contributions is rooted in the operationalization of the RIC construct. By using a set of inclusive databases, this research provides a measure for this new construct, namely the RIC Index. The RIC Index is developed by measuring the dimensions of the construct (institutional distance, institutional development, and institutional uncertainty) separately, and then through an aggregation of these measures. It is a multi-dimensional index and presents a comprehensive view of the institutional arrangements in international business environments. The development of the RIC Index contributes to the IB field not only by introducing a reliable

measure of country-specific effects from a home country perspective collectively, which can be updated annually, but also by providing extensive measures for each dimension of RIC separately, whereas they might be used individually in other streams of research.

The final category of contributions of this research lies in the empirical testing of the construct on ownership structure. First, the empirical testing of the developed hypothesis using the extensive dataset adds significant value. Using data from SDC Platinum on international joint ventures and alliances, this research tests the hypothesis on the relationship between RIC and ownership structure and the moderating effect of size. The results of this study not only demonstrate the validity of the RIC construct and its associated index, but also add value by extending the theory and determinants of an ownership structure in international business at the country level.

In sum, the main contribution of this research to the field of international business is through the development of the RIC construct, theoretical and conceptual support for this newly developed construct, and reliable measuring of the construct in the generated index. This research also examines the effects of RIC on firms' internationalization processes.

1.3 Data and Methodology

This study starts with a literature review on institutional environments' effects and their elements. Three main constructs are used to represent the institutional impact of environments, all of which are amalgamated under the umbrella of the RIC. These three constructs are *the institutional development of the host country*, *the institutional uncertainty of the host country*, and *the institutional distance between the host and the home country*. As a result, the new construct is developed theoretically and conceptually. After the conceptual development of the construct, the index to measure the new construct will be compiled. Using extensive data from three different

databases, namely *Global Competitiveness Report, Fragile States Index, and Worldwide Governance Indicators,* the appropriate measures are selected and taken into account based on theory. The measurement model is constructed in this section. At the last step of construct development, the data extracted from the databases are compiled, and the RIC Index is developed.

In the second half of this thesis, an application of the newly developed construct on MNCs' ownership structures is tested. After a review of the existing literature on entry mode and ownership structure and its institutional determinants, the hypotheses presenting the relationship between RIC and ownership structure will be developed and tested. In this section, an extensive dataset extracted from SDC Platinum on international joint venture and alliances will be used.

1.4 Thesis Structure

This thesis is organized into two main sections. In the first, the focus is on understanding the institutional patterns influencing firms' international strategies by reviewing relevant literature and developing a new comprehensive construct defined as the RIC. In this part, based on the existing literature on the institutional theory and international business, the construct of RIC is theoretically developed. Next, operational measures of the construct based on existing proxies of its dimensions are developed and are aggregated into an index for further use. The second part is an empirical study examining the effects of RIC on firms' foreign ownership structure as a particular international strategic decision employed by firms. The hypotheses will be developed and then tested empirically. This thesis will conclude with the discussions and implications section.

Part I: Relative Institutional Challenge, a New Perspective to Institutional Environments

2 Theoretical Foundations

The role of country conditions as a determinant of firm performance is especially important to multinational companies (MNCs) (Christmann, Day, & Yip, 2000). The literature on country attractiveness identifies a large number of individual country conditions, such as demographic, economic, and political factors, as affecting the potential performance and international behavior of MNCs (Busenitz et al., 2000; Christmann et al., 2000; Kiss & Danis, 2008).

An essential premise of much of international business (IB) research has been that "firms are embedded in country-specific institutional arrangements" (Busenitz et al., 2000, p. 994). Institutional theory suggests that organizations must adapt to their local institutional environment to survive (North, 1990; Powell & DiMaggio, 1991; Scott, 2001), while institutional systems consist of regulatory, cognitive and normative pillars (Scott, 2001). The regulatory aspects consist of rules and regulations; cultural-cognitive components include shared cognitive categories such as schemas and frames; and normative component compromises society value and norms (Kostova, 1999, 1999; Scott, 2001).

Countries differ in their institutional characteristics, and the institutional environments of countries influence organizational practices of firms (Kostova, 1999). Kostova (1999) suggests that its institutional profile can characterize a country's social environment. Many different pieces of research have shown the effect of institutional profiles of host or home countries on MNCs' international behaviour. Practice adoption (Kostova & Roth, 2002), entry-level strategy (Davis et al., 2000) and organizational strategy and policies (Bartlett & Ghoshal, 1999) are examples of some issues that have been shown to be influenced by the institutional profile of home and the host

country. In the following sections, this research provides a review of a different perspective to study institutional settings in IB.

2.1 Institutions and Institutional Theory

2.1.1 Institutions & Definition

Institutions are conceptualized as "the rules of the game in a society" (North, 1990: 3; Scott, 1995). North defines institutions as "the humanly devised constraints that structure human interaction" (1990: 3). Institutions are composed of formal rules such as laws and regulations and informal constraints such as norms and cultures (North, 1990 ; Peng, 2003). Scott (1995) argues that institutions comprise three pillars: regulative, normative, and cultural-cognitive pillars. First, the regulative pillar focuses on formal rule systems and enforcement mechanisms sanctioned by the state (North, 1990). The second pillar is the normative pillar, defining legitimate means to pursue valued ends (Scott, 1995). Finally, the cognitive pillar refers to shared conceptions and frames or taken-for-granted beliefs and values that are imposed on, or internalized by, social actors (DiMaggio & Powell, 1983). These three pillars of institutions provide bases of legitimacy that are related but distinguishable (Scott 1995, Peng 2003).

2.1.2 Different Views and the Position of This Thesis

Research on institutional theory has produced valuable insights into the processes that define and explain institutionalization in organizational environments and their influence on organizational responses to the environment (Oliver, 1991). Views on institutional theory have

evolved throughout time. Early versions of institutional theory placed particular emphasis on the taken-for-granted notions of institutions through the character of institutional rules, myths, and beliefs as shared social reality. They also were looking at the processes by which organizations tend to become imparted with value and social meaning (Berger & Luckmann, 1967; Selznick, 1949, 1957). More recent treatments of institutionalization have elaborated the nature and variety of these institutional processes (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977, 1988) and the type of influences that these processes exert on structural characteristics of organizations (Meyer, Scott, & Deal, 1983; Meyer, Scott, & Strang, 1987; Scott, 1987a; Scott & Meyer, 1987; Singh, Tucker, & House, 1986) and organizational change (Hinings & Greenwood, 1988; Tol-bert & Zucker, 1983). However, in an attempt to add to this literature, researchers such as Oliver (1991) paid explicit attention to "the strategic behaviours that organizations employ in direct response to the institutional processes that affect them" (Oliver 1991, P. 145).

2.2 Institutional View to Country-Specific Influences on Business Activities

The assessment of a country's institutional context might rely on a variety of economic, political, and business indicators (Chan et al., 2008; North, 1990). Some researchers examine the institutions' effect on firms' strategies, considering the differences between home and host countries mostly through institutional distance. Another approach considers absolute characteristics of a host or home country as a determinant factor in firms' decisions. In this section, this thesis builds a discussion on three different accepted constructs for examining the country-specific influences on firms' international activities.

2.2.1 Institutional Distance

2.2.1.1 Definitions and Literature Review

Kostova (1999) firstly introduced the concept of the country institutional profile as a three-dimensional construct defined "as the set of regulatory, cognitive and normative institutions in a country." (Kostova, 1999, p. 314). According to Hymer (1960), the differences between the home and host country environments cause a liability of foreignness increasing the exchange risk of operating in a foreign country, the chance of discrimination by local authorities, and lack of knowledge and familiarity with the foreign market (Hilmersson & Jansson, 2012; Hymer, 1960).

Kostova (1999) describes institutional distance as "the extent of similarity or dissimilarity between the regulatory, cognitive and normative institutions of two countries" (Kostova, 1999: 153). According to the author's conceptualization, a country's institutional environment includes government policies (constituting a regulatory dimension), widely shared social knowledge (a cognitive dimension) and value systems (a normative dimension). It is widely discussed that such institutional differences shape different aspects of firms' international behaviour. Also, it has been argued that greater institutional distance poses greater challenges of doing business in the host country (Xu& Shenkar, 2002). For example, higher levels of institutional distance are viewed to trigger conflicting demands for external legitimacy (or local responsiveness) in the host country and internal consistency (or global integration) within the MNCs' system (Bartlett & Ghoshal, 1999). Balancing these conflicting demands has been a key challenge for MNCs.

The literature on the effects of institutional distance shows the negative impact of institutional distance on firms' international performance in a host country (Bae & Salomon, 2010; Chao & Kumar, 2010; Eden & Miller, 2004). Researchers relate this negative correlation to factors such as

the cost of doing business abroad and liability of foreignness. Both mentioned factors increase with the higher level of institutional distance (Eden & Miller, 2004). As institutional distance increases, the conflicting pressures for local responsiveness and global integration become more challenging for foreign firms (Doz & Prahalad, 1991; Eden & Miller, 2004). By escalating the effects of institutional distance, including formal and informal, challenges become more salient for international firms (Xu& Shenkar, 2002). For instance, high institutional distance is suggested to be positively correlated with phenomena such as non-equity modes of entry (Davis et al., 2000; Uhlenbruck et al., 2006), lower practice adoption of subsidiaries' managers (Kostova & Roth, 2002) and higher level of distinctiveness of subsidiary managers' identity (Vora & Kostova, 2007).

The institutional distance anticipates the likelihood of entrance to a new country as a firm decision. Xu and Shenkar (2002) explain this relationship from an institutional perspective as follows:

> Firms will refrain from investing in markets that are institutionally distant, because business activities in those markets require conformity to institutional rules and norms that conflict with those of the home country. (Xu & Shenkar, 2002, p. 614).

Some studies show that in the presence of greater institutional distance, in answering to the trade-off between external legitimacy and internal consistency, firms prefer internationalization choices requiring lower resource commitment, which bestows them greater flexibility (Xu, Pan, & Beamish, 2004; Xu & Shenkar, 2002).

2.2.1.2 Institutional Distance and Other Views:

Although institutional distance construct has brought great value to the field of international business, there are some debates and discussions on different approaches to its conceptualization

and operationalization. Institutional distance grants a good grasp on the similarity of institutions and its effects on internationalization decisions of the firms. A company's internationalization decision is influenced by the similarity between host and home countries, but it is not the only determinant. The institutional profile and characteristics of the host/home country regardless of the level of similarity can be crucial by itself as well. In other words, the degree of institutionalization (the level of institutional development) of the country or existence of institutional uncertainty in the country are determinants which cannot be neglected, even if there are similarities between institutions of host and home country.

Phillips et al. (2009) believe that to have an appropriate understanding of institutional context; we need to broaden the concept of institutional distance and consider the level and state of institutionalization as well. They suggest this reconceptualization is done in three ways: first by adding the concept of degree and level of institutionalization; second, by redefining our understanding of the organizational field to a broader multi-level analysis incorporating subnational, national and super-national institutions; and lastly by incorporating the concept of institutional entrepreneurship and its effect on institutional distance. Adding the notion of institutional entrepreneurship will make institutional distance a more dynamic construct and will be aligned better with new institutional theories (Phillips et al., 2009).

Also, institutional distance neglects the direction of internationalization. The main strand of research on institutional distance only considers the value or magnitude of the distance. However, the value of the distance is not the only factor to take into account, the direction of internationalization matters significantly. In a research stream similar to institutional distance referred to as psychic distance, Hakanson & Ambos (2010) show that absolute differences in psychic systems in two countries are not the only factors affecting the perceived difference

between countries; the direction also plays a significant role. In their research, they show that the psychic distance from country A to B is different from the psychic distance in the opposite direction (Hakanson & Ambos, 2010). Hence, we can see that the symmetric view of institutional distance brings out some doubts about its applicability in all cases. As a result, some researchers asked for approaches that are more comprehensive i.e. an asymmetric notion of institutional distance (Hernández & Nieto, 2015).

To broaden the view of institutional environmental setting in international business, the following part of this research covers the notion of institutional uncertainty.

2.2.2 Institutional Uncertainty

2.2.2.1 Definition

As mentioned earlier, some researchers believe that in addition to the level of difference in institutional distance, assessing of institutional contexts in the field of IB should be broadened to include a concern for the degree and status of institutionalization. As firms internationalize, they encounter not only institutional contexts where key institutions differ, but also contexts that are composed of institutions that are not well institutionalized or under rapid institutional change (Phillips et al., 2009). While the host country, especially in developing economies, might be characterized by the absence of a given institution or set of institutions, it may also be characterized by institutions that – while similar to the home country – are only weakly rooted or under rapid institutional changes (Phillips et al., 2009).

As an indicator of the level of stability in a country's institutions, we consider the construct of institutional uncertainty. Institutional uncertainty shows the level of stability in social, political,

economic and legal institutions of a country. A strand of the literature on political/ institutional uncertainty focuses on the role of government instability, government quick turnover, unstable incentive frameworks, social unrest, and fundamental uncertainties about property rights (Brunetti & Weder, 1998). While there is confusion in defining this construct in IB literature, it has been explored more significantly in economics and political science.

Researchers define uncertainty in numerous ways in management literature (Duncan, 1972; Milliken, 1987; Spender, 1996; Sutcliffe & Zaheer, 1998). The common point in all these definitions is the central role of lack of information, knowledge, and understanding (Johnston, Gilmore, & Carson, 2008). Lack of proper information and knowledge affects the appropriateness level for dealing with specific problems (Johnston et al., 2008; Spender, 1996). Taking into account the effect of perception of decision makers, some researchers define uncertainty as a general term for "an individual's perceived inability to predict something accurately." (Milliken, 1987, p. 136).

There is some confusion on the definition of environmental uncertainty in the literature. One reason for this confusion comes from the fact that this term has been simultaneously used to describe the state of the organizational environment and the state of the person who perceives the environment (Milliken, 1987). Milliken (1987) suggests that environmental uncertainty grows from an inability to understand changes, events, and causal relationships in the external environment, coupled with an inability to predict the effect these will have on the firm and, consequently, an inability to develop response options and predict their consequences. Therefore, they suggest three different types of perceived uncertainty in organizations, namely "'state uncertainty," "effect uncertainty" and "response uncertainty." "State uncertainty" represents the level of uncertainty that arises from unpredictability in particular components of the environment.

The second type of uncertainty, "effect uncertainty", relates to an individual's ability to predict what the impact of environmental events or changes will be in the firm. The last type of uncertainty is associated with attempts to understand the proper response options and their consequences to the organizations (Milliken, 1987). Here we focus on the first type of uncertainty, as it is the closest conceptually to "environmental uncertainty" (Johnston et al., 2008; Milliken, 1987). This type of uncertainty concerns decision-makers in international business, as it affects their estimation of present and future market and market-influencing factors (Johanson & Vahlne, 1977).

In another classic research, Duncan (1972) defines the level of perceived environmental uncertainty using two primary dimensions: 1) static vs. dynamic notion of the environment and 2) complexity vs. simplicity of environment. The simple-complex dimension considers some factors in decision-making. The static-dynamic dimension considers the degree to which factors in the decision unit's environment remains the same over time or is in a continual process of change (Duncan, 1972). Based on this framework, environmental uncertainty increases as an environment becomes more dynamic and more complex.

Institutional uncertainty shows some direct links to major concepts in new institutionalism such as institutionalization, institutional change and institutional entrepreneurship (Rodrigues & Child, 2008), and hence considering it in assessing institutional contexts is aligned to previous gaps diagnosed by Phillips et al. (2009)

2.2.2.2 Sources of Uncertainty

Based on what was previously mentioned, we can see that in strategic management and organization theory literature, uncertainty is being referred to as the unpredictability of environmental or organizational variables that affects the decision and performance of organizations (Miller , 1992; Salancik & Pfeffer, 1978). The concept of risk and uncertainty in

management literature goes hand in hand. The term "risk" is being used to refer to factors in the environment that increase uncertainty and as such reduce predictability. There are many sources of risk and uncertainty such as "political risk" and "competitive risk" (Miller , 1992). Similarly, uncertainty can result from external shocks, unanticipated behavioural choices, or their combination (Miller , 1992). In this research, we are interested in general environmental uncertainties and their sources. As can be seen in table 1, according to Miller (1992), general environmental uncertainty arises from different sources: *political instability, government policy instability, macroeconomic uncertainties, social uncertainties, and natural uncertainties*.

Table 1. Sources of general environmental uncertainty, (Miller, 1992, P.314)

Political uncertainties
War
Revolution
Coup d'état
Democratic changes in government
Other political turmoil
Government policy uncertainties
Fiscal and monetary reforms
Price controls
Trade restrictions
Nationalization
Government regulation
Barriers to earnings repatriation
Inadequate provision of public services
Macroeconomic uncertainties
Inflation
Changes in relative prices
Foreign exchange rates
Interest rates
Terms of trade
Social uncertainties
Changing social concerns
Social unrest
Riots
Demonstrations
Small-scale terrorist movements
Natural uncertainties
Variations in rainfall
Hurricanes
Earthquakes
Other natural disasters

A list of different variables was used to measure institutional uncertainty. Researchers used proxies such as the standard deviation of GDP over a period of time, growth rate and variance of real GDP, the volatility of inflation rates, fluctuations in the terms of trade, the instability of the

real exchange rate, measures of corruption, the security of property rights, the quality of political rights, and the number of significant government changes (Brunetti & Weder, 1998).

This research tries to extend the measures used for institutional uncertainty by using measures covering all categories of general environmental uncertainty defined by Miller (1992).

2.2.2.3 Effects of Institutional Uncertainty:

Uncertainty has the effect of increasing the complexity and risk for international business (Phillips et al., 2009). International business research on institutional uncertainty of host countries on firms' internationalization behaviour investigates effects such as foreign investment or equity-based entry decisions, and mostly shows a negative impact of institutional uncertainty as a limiting force on the internationalization process of firms (Alm, Jackson, & McKee, 1992; Brunetti & Weder, 1998; Phillips et al., 2009). The trade-off between the flexibility of the firms versus their resources is of significant importance in firms' responses to institutional uncertainty.

2.2.2.4 Organizational Responses to Institutional Uncertainties

Environmental uncertainty is a core factor in shaping firms' strategies (Henisz & Zelner, 2003). Firms consider different responses to deal with the identified uncertainties. Based on the strength and sources of uncertainty, firms might consider two main approaches to managing their responses to environmental uncertainties: financial risk management or changes in firm strategy (Miller , 1992). While financial risk management approaches have been discussed mostly in the finance literature, strategic responses are of interest in management and international business literature. Miller (1992) categorizes five different groups of responses as strategic management responses, considering changes in firms' strategies when they are exposed to environmental uncertainty. These categories are *avoidance, control, cooperation, imitation, and flexibility*. Firms might use *avoidance* when the risk of doing business activities in a particular institutional context

is beyond the acceptable level. *Control* is used when they are willing and able to influence significant environmental contingencies to reduce uncertainties, given they possess sufficient resources. Actions such as political activities (lobbying) are an excellent example of control. *Cooperation* involves multilateral agreements between some actors. Using strategic alliances and cooperative strategies are examples of such responses (Miller, 1992). In another category, close to the view of institutional theorists, firms might use *imitation* strategies to gain legitimacy in an uncertain environment (DiMaggio & Powell, 1983). The last category of responses involves another type of mechanism. *Flexibility strategy,* unlike cooperation and control, aims to increase the internal responsiveness of the firm rather than attempts to reduce the level of unpredictability of external environment. Table 2, adapted from Miller's (1992) work, shows different organizational responses to uncertainties in various categories.

Table 2. Organization responses to uncertainties, (Miller, 1992, p. 321)

Organizational Responses to Uncertainties
Financial risk management
Forward or futures contracts
Insurance
Strategic management
Avoidance
Divestment
Delay new market entry
Low uncertainty niches
Control
Political activities
Gain market power
Exchange of threats
Vertical integration
Horizontal mergers and acquisitions
Cooperation
Long-term contractual agreements with suppliers or buyers
Voluntary restraint of competition
Alliances or joint ventures
Franchising agreements
Licensing and subcontracting arrangements
Participation in consortia
Interlocking directorates
Interfirm personnel flows
Imitation
Imitation of product and process technologies
Follow other firms in moving into new markets
Flexibility
Diversification
Product diversification
Geographic diversification
Operational flexibility
Flexible input sourcing
Flexible work force size
Flexible work force skills
Flexible plants and equipment
Multinational production

In another view to firms' responses to uncertainty, some researchers emphasize the role of non-market strategies (Henisz & Zelner, 2003). It is suggested that in higher levels of uncertainty, managers have to rely more on strong personal ties (Kiss & Danis, 2008) and developing managerial and personal trust, especially in cross-cultural business relationships (Möllering & Stache, 2007). Also, it has been discussed that building trust in business relationships will be hindered in uncertain environments and should be balanced by other types of trust (Child & Möllering, 2003).

To have a broader view of the state of institutionalization, the next section reviews the notion of institutional development. Institutional development seems to have a close relationship with institutional uncertainty and level of institutionalizations of the firms. Figure 1 summarizes the antecedents, indicators, and consequences of institutional uncertainty as previously discussed in this section.

We must distinguish between the degree of stability or uncertainty and level of development. Some institutional environments with high level of informal and under-developed institutions might possess a low degree of uncertainty and vice versa.

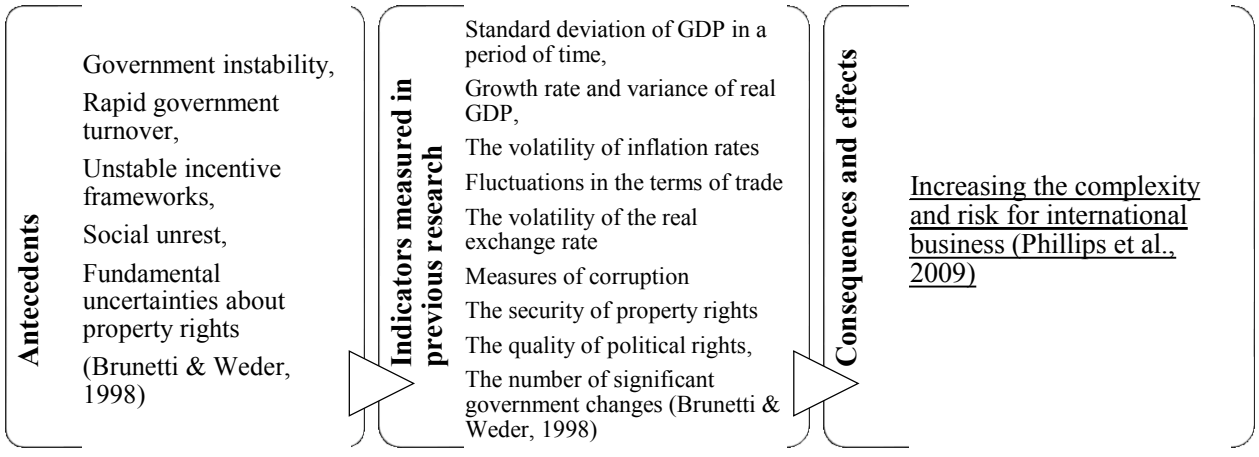


Figure 1. Institutional uncertainty, antecedents, indicators, and consequences

2.2.3 Institutional Development

2.2.3.1 Definition and Review:

As discussed earlier, contextual factors influence firms' behavior such as host country institutions. Therefore, the institutional profile of a host country is an important factor to be taken into account (Kostova & Zaheer, 1999; Peng, 2001). Institutions have formal and informal components. Formal institutions are a set of political, economic and contractual rules that regulate individual behaviour and shape human interaction. Informal institutions are conventions, codes of conduct, and norms of behaviour that come from socially transmitted information and as such are part of a country's cultural heritage (North, 1990).

Each host country possesses its own economic, political and social institutions with different levels of development (North, 1990). Hence, countries differ not only in their institutional setting, but also in the level of institutional development (Kostova & Zaheer, 1999; Miller, Lee, Chang, & Le Breton-Miller, 2009; Zaheer, Schomaker, & Genc, 2003). These differences in levels of development create unique challenges for foreign firms as the institutions alter the costs of engaging in business activities in one host country compared with another (Chan et al., 2008; Henisz, 2000). When we conceptually speak of levels of development in institutions, we refer to the concept of *institutional development*. The difference in *institutional development* among nations can either facilitate or constrain their economic activity. For a clear understanding of the institutional development, this research uses the definition by Chan et al. (2008). They define institutional development as "the extent to which the economic, political, and social institutions in a host country are formally developed and are favorable for foreign affiliates ", affecting the efficiency of market transactions and transformation (Chan et al., 2008, p. 1180).

Institutional development at the national level has effects in three main areas: economic, political, and social institutions. Economic institutions involve market intermediaries such as banking systems and agents, traders, and auditors, all of which impact product, capital and financial markets by reducing transaction costs (Chan et al., 2008; Khanna & Palepu, 2000). In an underdeveloped economic institution, the availability and efficiency of market intermediaries and infrastructure suppliers are under question, which serves as an obstacle for firms (Chan et al., 2008; Khanna & Palepu, 2000).

Political institutions have an essential influence on institutional development at the national level. Governments are the main key actors of political institutions and show their effect through policies and regulations in different areas such as investment regulations, tax and tariffs, and trade agreements (Chan et al., 2008; Henisz, 2000; Henisz & Zelner, 2003). The level of development in political institutions influences the extent to which governments enforce laws. It is evident in the transparency of legislation and lawmaking process, laws regarding intellectual property rights, and the level of corruption in a country (Chan et al., 2008; North, 1990; Rodriguez, Uhlenbruck, & Eden, 2005). In general, local government policies can affect foreign firms' activities in both favorable and unfavorable ways.

Another set of institutions affecting institutional development includes social institutions. Members of a nation shape and influence the social institutions. Social institutions might affect work ethics, beliefs about commercial activities, management dynamics and accepted practices, the level of collecting trust and so on. All of these factors influence the performance of a firm in a national context (Chan et al., 2008; Scott, 2007).

It is imperative to understand institutional development by taking into account all three aspects of institutions including social, economic and political institutions. Existing research has been

unclear on the concept of institutional development to a certain extent. In many cases, institutional development has been looked at from one factor such as economic development represented by GDP per capita (Wu, 2013).

2.2.3.2 Effects of Institutional development

The extent to which institutional environments are developed varies from one country to another. Research has examined how the level of institutional development of a host country affects performance and strategic decisions of the international firms (Chan et al., 2008).

Countries with high levels of institutional development tend to have well-developed banking systems, strong public equity markets, and established venture capital industries, which can provide supports such as financing for international growth (Bruton, Fried, & Manigart, 2005). They also have well-established legal traditions, systems, and effective enforcement mechanisms, which facilitate new business creation and growth and protect investors (Bevan, Estrin, & Meyer, 2004).

On the other side, indicators of the low level of institutional development include strong institutional voids[1], weak formal institutions and lack of connection to international networks (Peng & Luo, 2000). In general, the level of institutional development in emerging economies is relatively small, due to a lack or insufficiency of formal institutional rules (Hitt et al., 2004; Hoskisson et al., 2000; Khanna & Palepu, 1997).

[1] Khanna and Palepu (1997) define "institutional voids" as the relative lack of intermediary firms, regulatory systems and contract-enforcing mechanisms. These voids might negatively influence economic exchange in capital, labour and product markets in contexts such as emerging economies.

The existence of institutional voids might have both negative and positive effects. The main negative impact of institutional voids is increasing transaction costs. In the absence of well-developed institutions, firms face a higher level of transaction cost. The presence of imperfect markets includes product, labour and financial markets. On the other hand, institutional voids might show their effect on business opportunities. The potential for business activities to fill institutional voids bring some opportunities for institutional entrepreneurship activities for firms, especially those possessing resources, capabilities and legitimacy to work on infrastructure development (Maguire, Hardy, & Lawrence, 2004). Furthermore, it might denote lower barriers to entry for first movers (Rodriguez et al., 2005). Research shows the relationship between the level of institutional development, and variation and magnitude of foreign affiliates' performance in international contexts (Chan et al., 2008). Some research shows that in the absence of formal institutional mechanisms, alternative informal mechanisms such as those based on reputation and relationships are replacing them (Allen, Qian, & Qian, 2005).

2.2.3.3 Organizational responses to institutional development

Firms might show different strategic responses to various levels of institutional development. Some research shows an association between higher levels of institutional development and increasing partnership activities, such as arm's-length relations between firms, rather than emotional involvement, which will happen at lower levels of institutional development (Kiss & Danis, 2008). Firms' resources play a vital role in responding to weak institutions, and the effect of firms' legitimacy-based abilities in managing institutional idiosyncrasies is a significant factor in firms' success. Foreign affiliates that have sufficient organizational capabilities to manage the institutional idiosyncrasies of the host country will have a better chance of achieving better performance than those without this ability (Henisz & Zelner, 2003).

2.2.4 Institutional Development & Institutional Uncertainty: Relationships and Comparison

Notions of institutional uncertainty and institutional development might bring some confusion for readers in management literature. While these two concepts seem to have a close relationship, they conceptually differ in definition and concepts. To clear the differences between these two concepts, we borrow concepts from the literature of institutionalization. At this moment, we define institutional development as the degree of institutionalization. Hence, institutional development in our research represents a state[2]. The level of institutionalization represents the extent to which institutions in a particular context are well established or defined. On the other hand, institutional uncertainty concept is closely related to the notions of institutional change and intervention (Maguire et al., 2004). Institutional change might happen as the result of deinstitutionalization, re-institutionalization, and the institutionalization process. Institutional uncertainty represents the pace of institutional change processes. If institutional change happens in a short period (in the extreme case it can be external shocks and interventions), it creates high levels of institutional uncertainty (Jepperson, 1991). Wars and harsh political changes, such as coups can be examples of these shocks. Changing at the level of institutional development is a long-term process, and institutional uncertainty might be a cause for it. However, changes in levels of institutional uncertainty can happen in a short time while institutional development is still in the same state.

[2] When reading about the concept of institutional development, one should be cautious about the two different notions used in the literature. Some researchers mean the process of developing institutions, while others look at the state of institutionalization. In this thesis, the term refers to the second definition.

Providing some real examples will show the readers a better understanding of the relationship and differences between these two concepts.

- Countries with sudden changes in their economic, institutional context: When a country undergoes an economic shock, such as the US recession in 2008. At the start of the financial crisis in the fall of 2008, the US was still a country with a high level of institutional development, while it suffered a sudden change in its level of institutional uncertainty.
- Countries under external and internal political shocks or conflicts: At some point, a relatively developed country might have a high level of uncertainty due to external political shocks or conflicts. A suitable example of this case would be Ukraine. Ukraine tolerated a rapid change in the level of institutional uncertainty after the internal conflicts and external intervention in 2014. While Ukraine might pass this era of uncertainty and stays with the same degree of development as its previous state, a very high level of uncertainty had significant effects on its environment during that period.
- Countries with the relatively low level of institutional development but a high degree of stability: There are some cases in developing countries with a relatively low level of economic, political and social development, altogether composing institutional development, while they show a quite stable environment. An example would be countries with dictatorship or monarchy political system in areas such as the Persian Gulf. These countries have a low level of institutional changes and according to the factors of institutional uncertainty, all have stable institutional environments.
- Cases in which institutional uncertainty leads to higher states of development: Institutional uncertainty might be the result of some deliberate actions leading to a higher development state. A good example would be countries in transition or economic reform. Although these

countries bear higher levels of institutional uncertainty during the transition or reform, the result will be a country with the higher level of development.

While the concepts of institutional uncertainty and institutional development represent two different constructs, there are clear relationships between them. An extremely institutionalized institution shows higher levels of rigidity confronting social intervention and vulnerability. Hence, if a context is at a higher degree of institutionalization (high level of institutional development), it is less likely to be effected rapidly by the process of institutional change (lower levels of institutional uncertainty) (Jepperson, 1991). However, examples such as the financial crisis in the highly institutional financial market in the US and political interventions in highly developed countries shows that even highly institutionalized institutions can be affected by institutional uncertainty.

A typology of host country categorization based on the level of institutional uncertainty and institutional development has been provided in Figure 2. Based on our theoretical discussion, we can categorize host countries in four different groups, such as depicted in the following figure:

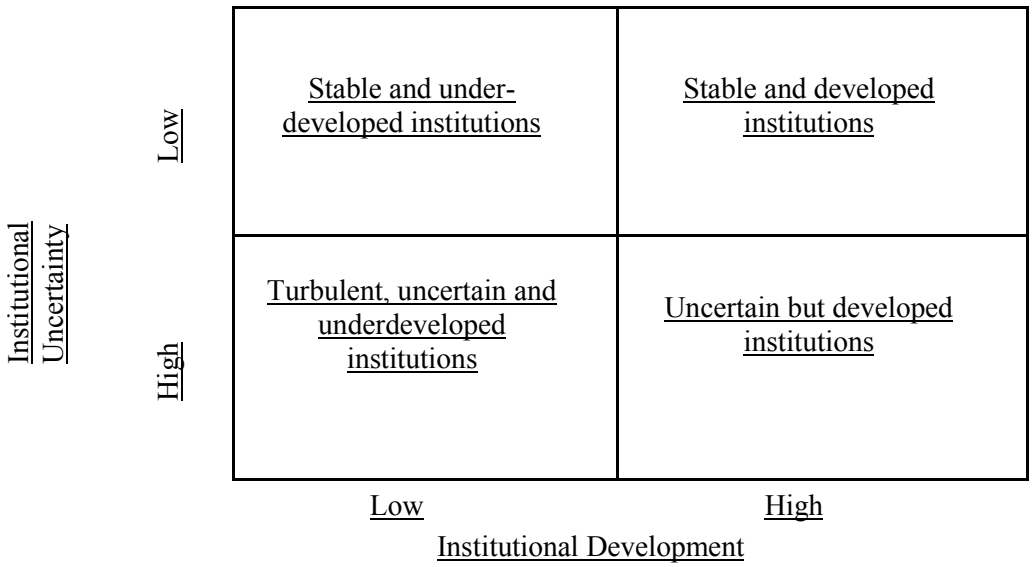


Figure 2. Typology of countries based on institutional uncertainty and institutional development

Based on previous arguments, we can conclude that institutional uncertainty and institutional development represent different characteristics of an institutional environment and show different effects on international performance of the firms.

A summary of the literature review for the points discussed in chapter 2 is provided in Table3.

Table 3.Summary of literature review on Institutional determinants of environments

Dimension and its sources	Results from	Role in international behavior of the firm	Firms' strategic responses to this dimension	Attributed characteristics of the firm	Main articles/ resources
Institutional Distance					
Differences between regulatory, normative and cognitive cultural institutions of host and home countries		- Conflict between internal consistency and external legitimacy, An inverted U-shaped relationship between distance and subsidiary survival (Gaur & Lu, 2007) - Negatively related to the implementation of organizational practices by foreign subsidiaries (Kostova, 1999) - Negative relationship with establishing and maintaining the legitimacy in host country (Kostova & Zaheer, 1999) - Positive relationship with dual organizational identity between subsidiary managers and headquarter managers (Vora et al., 2007) - Negatively associated with the extent of equity ownership (Xu et al., 2004) - Higher level of local isomorphism strategy by increasing institutional distance (Salomon & Wu, 2012)	Lower resource commitment	International experience,	(Gaur & Lu, 2007; Kostova, 1999; Kostova, Roth, & Dacin, 2008; Salomon & Wu, 2012; Vora et al., 2007; Xu& Shenkar, 2002)

Institutional Development				
Implementation of financial market and economic policies, the improvement of the provision of public goods, the efficiency of intermediation, the reduction of the extent of corruption	- Higher development is correlated with higher level of resource commitment - In low institutional development: Lack of legitimate strategic choices that have known outcomes, differences in the institutional ability of foreign affiliates to handle institutional idiosyncrasies (Chan et al., 2008, p. 1183) - Outperforming of resource-based strategies to institution-based strategies in more developed host countries	Trade-off between resource-based and institution based strategies	Legitimacy, international experience	(Bevan et al. 2004; Chan et al. 2008; Khanna & Palepu, 1997)
Institutional Uncertainty				
Political uncertainty **Governmental uncertainty** **Macroeconomics uncertainty** **Social uncertainty** **Natural Uncertainty**	Increasing the risk of international activities	Financial risk management Control Avoidance Cooperation Imitation Felicity	Flexibility , Level of resources for control and avoidance strategies	(Duncan, 1972; Henisz & Zelner, 2003; Miller , 1992; Milliken, 1987)

In the next section, this research provides a comprehensive review of institutional context in a particular host country. Three main constructs include institutional distance to show the similarity between the host and home country, institutional development to display the level of institutionalization and the presence of institutions required for supporting business activities and institutional uncertainty to demonstrate the stability of the institutions and represents the risk of doing business in a particular host country.

In this research, as we can see in table 4, the combination of these three constructs is called the "Relative Institutional Challenge." Further discussions on theoretical and measurement development for this construct will be presented in coming chapters.

Table 4. Relative Institutional Challenge *and its components*

	Components
Relative Institutional Challenge	Institutional distance
	Institutional development
	Institutional uncertainty

3 Construct Development: Theoretical Arguments

After the review of existing literature, this section covers the basics and fundamentals of our new developed construct. After a short review of fundamentals of the new construct, differences between two major types of constructs (formative vs. reflective) the new construct of the Relative Institutional Challenge is developed.

3.1 Why Do We Need a New Construct for Representing the Challenge in Institutional Environments?

As mentioned in previous sections, institutional distance has been the dominant construct in the last decade to represent the institutional environments firms face. However, some scholars have mentioned there is a need to rethink institutional distance by looking at the host country's state of institutionalization and the institutional differences between host and home countries. Some studies have suggested using institutional uncertainty in addition to institutional distance (Phillips et al., 2009), and some others have used institutional development of host country as a determinant (Chan et al., 2008; Hernández & Nieto, 2015). For instance, Hernandez and Nieto (2015) conclude in their recent research that as "negative regulative distance (e.g. when the host country is lower in regulatory development than the origin country) increases, firms will be more likely to prefer entry modes requiring a lower level of resource commitment." (Hernández & Nieto, 2015, p. 124). On the other hand, "as positive regulative distance (e.g. when the host country is higher in regulatory development than the origin country) increases, firms will be more likely to prefer entry modes requiring a higher level of resource commitment. " (Hernández & Nieto, 2015, p. 125)

This research suggests that both factors of institutional uncertainty and level of institutional development should be considered in addition to institutional distance between host and home countries for the following reasons:

1) Although institutional development and institutional uncertainty have been used loosely in the literature, this research addressed the different notions of these construct as they represent two dissimilar factors of institutionalization. However, there might be a causal relationship between these two constructs as discussed in the previous chapter. Hence, we do not neglect the correlation between these two factors in our model.

2) The antecedents and consequences of each construct are different, and they influence firms' behaviors differently.

3) Firms need to look simultaneously at the state and strength of existing formal institutions in a host country in addition to the existing pace of changes at those institutions.

This thesis argues that an inclusive construct should encompass three major dimensions. The first dimension is the level of development of the institutional environment of the host country (representing the strengths of formal institutions and infrastructures facilitating international trade). The second dimension shows the degree of institutional uncertainty in the host country (representing the degree of risk and unpredictability of doing business in home country). Lastly, the institutional distance between home and host country (representing the similarity of contexts affecting the institutional duality of internal and external environments of internationalized firm) is the last component.

This research calls the new construct as *Relative Institutional Challenge* for the following reason:

1) By including the institutional distance between two countries, institutional development of host country and institutional uncertainty of host country, this construct collectively represents the challenge in institutional contexts.
2) In addition to taking into account the absolute perspective to a country's institutional arrangements, it considers the level of similarity and relativity between home and host countries.

Figure 3 shows the proposed theoretical model of this thesis. The relationship between the RIC and the internationalization process will be investigated in the second part of the thesis.

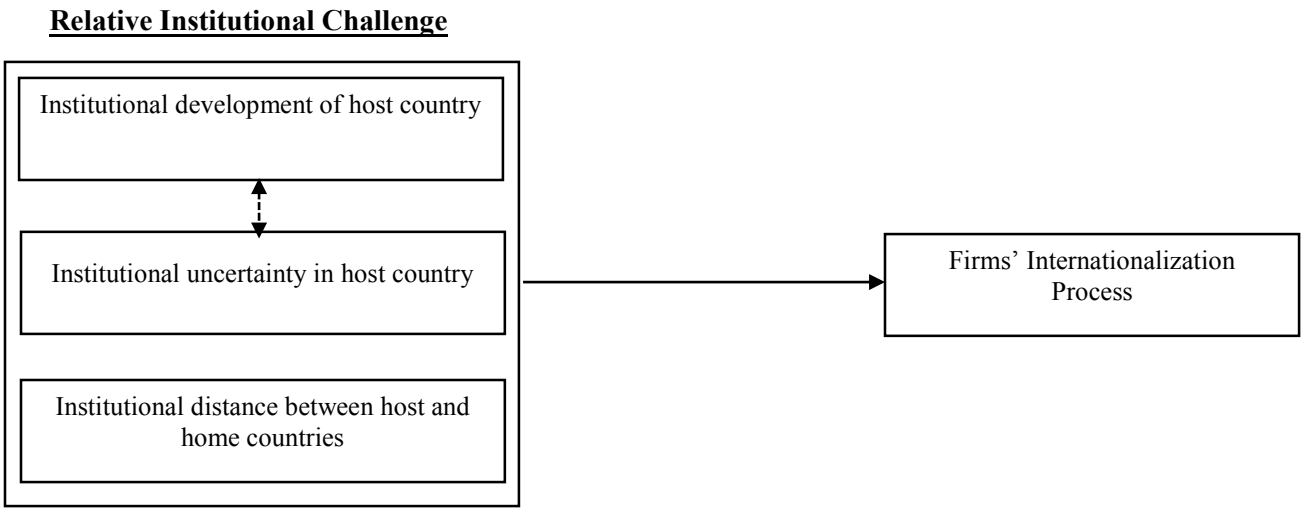


Figure 3. Relative Institutional Challenge, components and relationships

A mathematical representation of the RIC is represented in figure 4 as follows.

$$R.I.C._{ijt} = Inst.\ Dist._{ijt} + Inst.\ Unc._{it} + Inst.\ Dev._{it}$$

i: Host country

j: Home country

t: year

$R.I.C._{ijt}$: Relative institutional challenge of country i for a firm from Country j at year t

$Inst.\ Dist._{ijt}$: Institutional distance between countries i and j at year t

$Inst.\ Unc._{it}$: level of Institutional uncertainty of country i at year t

$Inst.\ Dev._{it}$: level of Institutional development of country i at year t

Figure 4. Relative Institutional Challenge representation

3.1.1 How does Relative Institutional Challenge add value over its individual dimensions?

Institutional development, institutional uncertainty, and institutional distance have been used independently in literature to represent the institutional settings of environments. However, having a comprehensive construct as the RIC adds significant value. This research shows that for a comprehensive view of institutional arrangements in the international business environment, looking at just one of the dimensions might be misleading. In addition, it is important to have a view on institutional environment encompassing both factors of differences between institutional settings and specific factors related to the host country at the same time. In addition, managers and decision makers are more concerned about the level of challenges working in a specific institutional environment will pose than the individual elements of it. Having a comprehensive

dimension will help managers and researchers for having a more precise lens to investigate the institutional environments and their effects on firms' decisions.

3.1.2 A Configurational Setting on Relative Institutional Challenge

As the RIC is composed of three dimensions, different configurations are possible for this construct and firms' strategic responses to each situation might vary. Table 5 shows different settings possible for relative institutional challenge representing some examples of those situations.

Table 5. Configurational setting of Relative Institutional Challenge

Institutional Distance between two countries	***Inst. Development of host country***	***Institutional uncertainty at host country***	***Relative Institutional Challenge level***	***Explanation of the situation***
L	**H**	**L**		From a developed economy to a stable developed economy
L	**L**	**L**		From a developing economy to a stable developing economy
L	**H**	**H**		From a developed economy to a developed economy at a crisis
L	**L**	**H**		From a developing economy to a turbulent developing economy
H	**H**	**L**		From a developing economy to a stable developed economy
H	**L**	**L**		From a developed economy to a stable developing economy
H	**H**	**H**		From a developing economy to a developed economy in crisis
H	**L**	**H**		From a developed economy to a turbulent developing economy

L: Low, H: High

 : Very low level of institutional challenge perceived by the firm

 : Some level of relative institutional challenge perceived by the firm.

 : Considerable level of relative institutional challenge perceived.

 : Relative institutional challenge is very high

After the theoretical development of the construct, methods of measurement will be discussed to prepare an index for measuring the RIC in the next chapters,.

4 Measurement and Development of the Construct

Before developing the index of a RIC as a new construct, a general review of different types of constructs will be helpful to clarify the methodological perspective. We face various kinds of constructs and different validity methods for each. Also, we distinguish between our theoretical model (the part that specifies the relationship between theoretical constructs) and the measurement model (the part that describes the relationship between constructs and indicators) (Roberts & Thatcher, 2009). Next sections cover these topics.

4.1 Formative vs. Reflective Constructs:

"A construct is defined as a conceptual term used to describe a phenomenon of theoretical interest." (Roberts & Thatcher, 2009, p. 11). The nature and direction of relationships between constructs and indicators have a meaningful effect on approaches to the construct validity notion. Constructs are being measured or formed in two main approaches. The first and the most common type is when constructs' indicators are capturing construct behavior and variation in construct leads to variation in its indicators. Such indicators are termed reflective because they represent reflections, or manifestations, of a construct (Roberts & Thatcher, 2009). In reflective measurement models, causality flows from the latent construct to the indicators (Coltman, Devinney, Midgley, & Venaik, 2008). Another group of constructs involves formative constructs. Formative constructs are formed or induced by its measures and are composites of specific dimensions. Figure 5 shows a schematic model of reflective and formative constructs. These two types of constructs show fundamental differences. In reflective constructs, variation in a construct leads to variation in its indicators. While reflective indicators are supposed to be internally

consistent and hence correlated, the case is different for formative constructs. Conceptually, formative indicators are assumed uncorrelated (Coltman et al., 2008). It is important to note that although theoretically uncorrelated, in practice, formative indicators might co-vary.

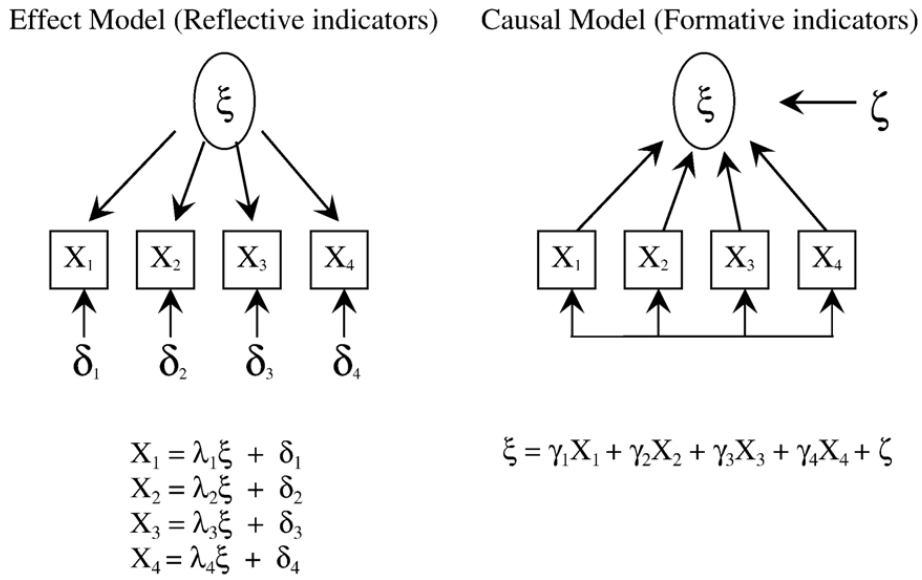


Figure 5. Schematic model of reflective and formative constructs: taken from (Coltman et al., 2008)

The conceptual differences between formative and reflective indicators are viewed in three key categories: causality, interchangeability, and validity. Using these properties, we can distinguish formative constructs from reflective ones (Roberts & Thatcher, 2009).

- Causality: formative constructs consist of indicators that are viewed as causes of constructs, while in reflective constructs, constructs are seen as causes of reflective indicators. In other words, in the formative constructs, the direction of causality is from indicators to construct while the causality effect is directed from constructs to the indicators in reflective constructs.

- Interchangeability: since reflective indicators are correlated and represent a common theme, they are interchangeable; hence, removal of one or some indicators will not change the essential nature of the construct. In formative constructs, each indicator grasps an important and meaningful theoretical part of the construct. Hence, they are not interchangeable and removing each of them will omit an important component of the construct.

- Validity: measurement models do not explain the correlation between indicators in the formative constructs. However, the validity of reflective constructs can be assessed through the measurement model (Roberts & Thatcher, 2009).

Table 6, borrowed from Robert and Thatcher (2009) as our primary reference in this section, summarized the conceptual differences between formative and reflective indicators.

Table 6. Conceptual differences between Formative and Reflective indicators (Roberts & Thatcher, 2009, p. 12)

Concept	Formative Indicators	Reflective Indicators
Causality	Formative indicators are viewed as causes of constructs (Blalock 1971). The construct is formed or induced by its measures (Fornell and Bookstein 1982).	Constructs are viewed as causes of reflective indicators (Bollen 1989). Reflective indicators represent manifestations of a construct (Fornell and Bookstein 1982).
Interchangeable	Not interchangeable – "omitting an indicator is omitting a part of the construct" (Bollen & Lennox 1991 p. 308).	Interchangeable – the removal of an item does not change the essential nature of the construct. Although every item need not be the same, researchers need to capture the domain space of the construct (Little et al. 1999).
Validity	Indicators are exogenously determined; hence, correlations are not explained by the measurement model (Bollen 1989).	Validity of indicators can be assessed through the measurement model (Bagozzi et al. 1991).

Since indicators in a formative construct can possess any level of intercorrelation (no theoretical correlation, high, or low intercorrelation), adding or removing a dimension/indicator can change the conceptual domain of the construct. Hence, using a validity test as acceptable for

reflective models will not occur in this case. However, researchers argue that as long as the indicators conceptually represent the domain of interest, they may be considered adequate from the standpoint of empirical prediction.

Due to the positive intercorrelations among their indicators, reflective constructs can be used for statistical tests, such as factor loading or commonality, to assess the individual and composite reliabilities of their indicators. However, as these measures of reliability assume internal consistency known as high intercorrelations among the construct indicators, they are inappropriate for formative indicators (Coltman et al., 2008).

4.1.1 How to Measure a Formative Multi-Dimensional Construct?

In this section, the current thesis discusses measuring a multidimensional construct. There are various ways to measure a construct such as the RIC as a multidimensional construct. Law et al. (1998) proposed a taxonomy to do so. Based on their taxonomy, the relationship between the construct and its dimensions can be defined by two decision rules: relational level and relational form. Relational level addresses the following question: "Does the multidimensional construct exist at the same level of its dimensions? ", and relational form is the answer to the question "can the dimensions be algebraically combined to form an overall representation of the construct? " (Law, Wong, & Mobley, 1998, p. 743). Answering these questions will lead us to four main models of Multidimensional Constructs as the *latent model, the aggregate model, the profile model and the unclassified model.*

The following table, borrowed from seminal work of Law et al., shows different measurement models of multidimensional constructs with their characteristics.

Table 7.A taxonomy of multidimensional constructs (Law et al., 1998, p. 744)

Models	Examples
Latent model: constructs as underlying higher-order abstractions behind their dimensions	End-user computing satisfaction (Doll, Xia, & Torkzadeh, 1994) g-factor (Spearman, 1927) Personality traits (Rounds & Tracey, 1993) Physical distribution activities (Granzin, 1980) Role stress (McGee, Ferguson, & Seers, 1989) Upward-influence tactics (Farmer, Maslyn, Fedor, & Goodman, 1997)
Aggregate model: constructs exist at the same level as their dimensions and are formed as a mathematical function of their dimensions	
Additive	Dysfunctional thought process (Judge & Locke, 1983) Job characteristics (Stone, 1976) Job-related tension (Kahn, Wolfe, Quinn, Fnoek, & Rosenthal, 1964) Job satisfaction (Lawler, 1983; Locke, 1969) Organic management system (Keller, 1978) Social readjustment (Holmes & Rahe, 1976)
Multiplicative	Job motivation (Hackman & Oldham, 1976, 1980)
Profile model: constructs exist at the same level as their dimensions and are formed as various combinations of their dimensional characteristics	Foci of commitment (Becker & Billings, 1993) Influence tactics (Kipnis, Schmidt, Swaffin-Smith, & Wilkinson, 1984) Organizational environment (Duncan, 1972) Personality traits (Cattell, Eber, & Tatsuoka, 1970; Gough, 1987; Hathaway & McKinley, 1967) Vocational interests (Holland, 1973; Strong, 1943)
Unclassified: constructs without clear specification of the relations between the overall construct and the dimensions	Culture (Hofstede, 1984) Organizational citizenship behaviors (Organ, 1988) Self-concepts (Marsh & Gouvernet, 1989) Support for innovation (Siegel & Kaemmerer, 1978) Time urgency (Landy, Rastegary, Thayer, & Colvin, 1991)

The model of our interest in this research will be an aggregate model due to reasons I will explain in the next section.

4.1.2 Relative Institutional Challenge as a Formative Construct & Proper Measurement Models

In this section, the reasons for considering the RIC as a formative construct and its appropriate measurement model will be discussed. As discussed earlier, three factors, namely causality, interchangeability, and validity, distinguish between reflective and formative constructs. These three factors, based on the model presented by Robert and Thatcher, are tested for the case of the RIC .

Causality: the RIC is a composition of three dimensions, namely institutional uncertainty in the host country, institutional development in the host country, and the institutional distance between home and host country. These three dimensions are building blocks of the construct, and the change of each of them results in a change in the construct. Therefore, the direction of causality is from dimensions to the construct (first property of formative constructs)

Interchangeability: in the RIC, each dimension adds to other dimensions in specific ways to grasp a domain on the theoretical argument. Institutional distance adds the view on relativity and similarity in country pairs, while institutional development and institutional uncertainty give information about the state and pace of institutionalization in the host country. As mentioned before, while institutional development and institutional uncertainty have some correlations, they represent different notions. Hence, we cannot omit any dimension in our construct as it will omit a part of the theoretical significance of the construct.

Validity: In a formative construct, dimensions are exogenously determined. As this research shows, each dimension in the RIC is being represented by a different measurement using a different

dataset. However, we expect to have some correlation between measurements of institutional distance and institutional development. To reduce the commonalities of these two constructs, I will perform a pre-screening of the measures in each dataset.

As we see based on the factors discussed, the RIC is clearly a formative multi-dimensional construct. Based on the taxonomy of Law et al. (1998), I suggest that the aggregate model is an appropriate model to use for our construct. In aggregate models, constructs are formed as mathematical functions of their dimensions, which exist at the same level of the constructs. The RIC construct, as previously showed, is at the same level of its dimensions and encompasses a mathematical equation between the dimensions.

4.2 Measurement Model Development:

4.2.1 Methodology:

The measurement model for the RIC is being developed in this part of our research, after our theoretical development of the construct. As it was already mentioned in the previous section, we used an aggregated model for measuring the RIC, which is composed of an algebraic addition of its dimensions. At this point, the question of proper measurements for each dimension is still valid. It is crucial to consider various dimensions of national institutions in our analysis and have a more comprehensive measurement model as many prior studies in institutional settings, such as institutional distance, have mostly focused on a limited number of dimensions (Salomon & Wu, 2012).

In the following part, the detailed process and reasons for choosing specific measures for each dimension will be explained.

4.2.2 Institutional Development in Host Country:

Institutional development index can be measured in different ways. As an exemple, Chan *et al.* (2008) developed an index called Institutional Development Index (IDI) using 12 national institutional characteristics as proxies for economic, political and social institutions for the period of 1996-2001. Unfortunately, this Index is not available for a broader set of years. However, they showed that IDI was highly correlated with some other institutional measures such as *Global Competitiveness Index* by *World Economic Forum* with a correlation coefficient of 0.806. Hence, the *Global Competitiveness Report* was used as the primary data source for institutional development in the host country. However, some filtering and modifications were needed to represent a better fit between this data set and the desired dimension measuring.

In the next part, this research briefly reviews the Global Competitiveness Report as a rich database of national level. Afterward, the selected measures, method, and the basis for selection of the dimensions will be explained.

According to the theoretical arguments, the measure should contain a comprehensive view to serve as a proxy for the economic, political and social institution. To check the covering of the measure, I used 12 variables that Chan *et al*. (2008) developed in three main categories of institutions, as shown in table 8.

Table 8. Variables to measure for Institutional Development based on Chan et al. (2008)

Institutions	Variables
Economic Institutions	• GDP per capita (in U.S. dollars), • Economic conditions, • Distribution infrastructure, • Financial resources
Political institutions	• Intellectual property rights, • Political system, • Law and Order, • Bureaucracy quality
Social institutions	• Justice, • Harassment and Violence, • Corruption, • Civil freedom

4.2.2.1 A Review of Global Competitiveness Report:

The Global Competitiveness Report is the main dataset we use for extracting measures of institutional development. It has been published annually for more than three decades by the World Economic Forum to represent the level of competitiveness of nations. The Global Competitiveness Index (GCI) is a comprehensive tool developed from the report to measure the microeconomic and macroeconomic foundations of national competitiveness. The Global Competitiveness Report defines competitiveness as "the set of institutions, policies and factors that determine the level of productivity of a country" (Sala-I-Martín *et al*., 2014, p. 4). The GCI is a weighted average of 112 indicators being grouped as 12 pillars of competitiveness, namely *Institutions, Infrastructure, Macroeconomic environment, Health and primary education, Higher education and training,*

Goods market efficiency, Labour market efficiency, Financial market development, Technological readiness, Market size, Business sophistication, and *Innovation.* The detailed results of the Global Competitiveness Report categorize and rank 144 countries taking into account their stages of development. The GCI is also based on main drivers of competitiveness for each country, and categorizes countries into three different types of economies: factor-driven economies, efficiency-driven economies, and innovation-driven economies (Sala-I-Martín et al., 2014).

The main framework of Global Competitiveness Index is shown in the following figure.

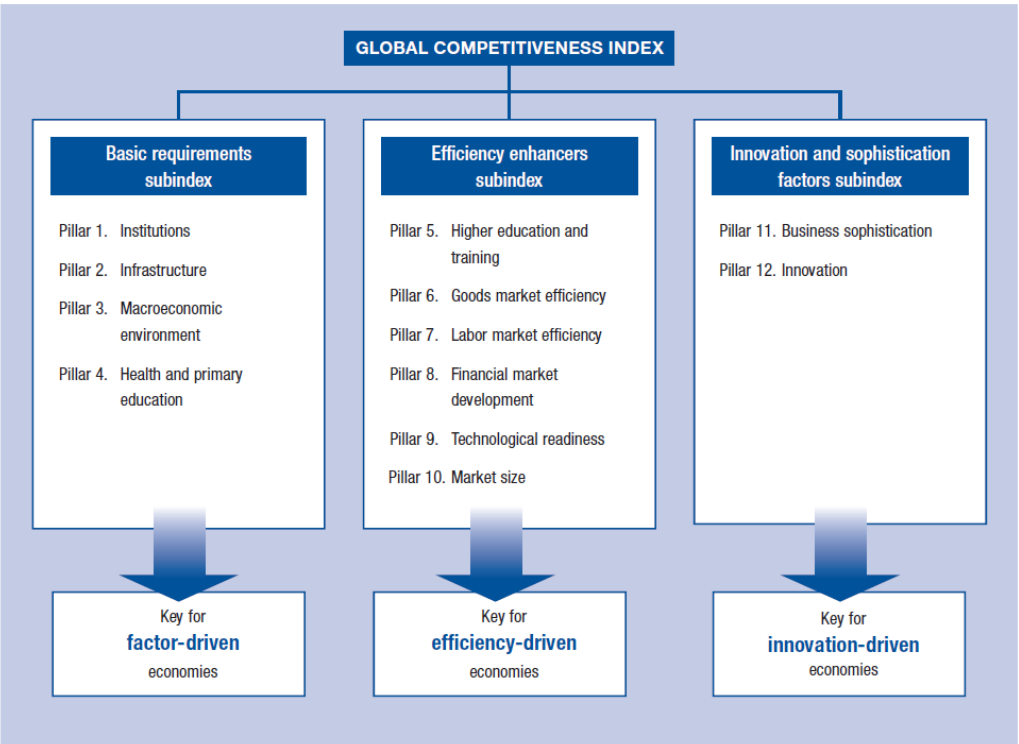


Figure 6. The Global Competitiveness Index framework, (Global Competitiveness Report 2014-2015, p.9)

This thesis argues that institutional development is not the only determinant of competitiveness; hence, a pre-screening in measures is needed to make sure the measures we are using are representing the institutional development of a nation, not other aspects of competitiveness. With this regard, the framework for institutional development developed by Chan *et al.* (2008) was used to screen relevant indicators for each dimension of institutional development. Due to the importance of technological advancement and innovation infrastructure in national development, this research also added one more category, namely "Innovation and Technological Development", adding two factors (technological readiness and R&D /Innovation infrastructure) to the 12 factors established by Chan *et al.* (2008). As a result, we have 14 dimensions of development categorized into four main categories: Economic Institutions, Political Institutions, Social Institutions, and Innovation and Technological Development. Three experts, including the author, performed pre-screening using two the following conditions:

1) In each dimension (except GDP /capita), at least two measures should be selected;
2) All measures selected should represent the state of institutionalization as the main criteria for institutional development.

As a result of the screening, 33 indicators were selected from the Global Competitiveness Report as shown in table 9. These indicators will be used in shaping the institutional development dimension of the RIC.

Table 9. Indicators selected from the Global Competitiveness Report representing different dimensions of Institutional Development

Category	Dimensions of institutional development (Chan *et al.* 2008)	Indicators extracted from Global Competitiveness Report
Economic institutions	GDP per capita (in U.S. $)	GDP/capita 3.05 Country Credit Rating
	Economic conditions	3.02 Gross National Saving, %GDP
	Distribution infrastructure	2.01 Quality of overall infrastructure 2.02-2.05 quality of roads, railroad, ports, and air transport infrastructure [1] 11.06 Control of international distribution
	Financial resources	8.A) efficiency of financial markets 1.20 Protection of minority shareholders' interests 1.21 Strength of investor protection
Political institutions	Intellectual property rights	1.01 Property rights 1.02 Intellectual property protection
	Political system	1.03 Diversion of Public Funds 1.12 Transparency of government policymaking
	Law and order	1.06 Judicial independence 1.07 Favoritism in decisions of government officials
	Bureaucracy quality	1.10 Efficiency of legal frameworks in settling disputes 1.11 Efficiency of legal framework in challenging regulations
Social institutions	Justice	4.10 Primary education enrollment rate 7.10 Female participation in labor force
	Harassment and violence	1.14 Business costs of crime and violence 1.16 Reliability of police services
	Corruption in government	1.04 Public trust in politicians 1.05 Irregular payments and bribes
	Civil freedom	1.06 Judicial independence 8.08 Legal rights index
Innovation and Technological Development	Technological readiness	9.A Technological adoption 9.04 Internet users
	R&D/ innovation infrastructure	1.02 Intellectual property protection 12.02 Quality of scientific research institutions 12.04 University-industry collaboration in R&D

[1] Average of this four factor were taken into account in the analysis part.

To test the reliability and validity of our measures, we performed a factor analysis on all factors extracted. It is expected that one component shows a very high factor loading. The table showing total variance explained by the results and the scree plot are being shown in figure 7.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18.646	58.269	58.269	18.646	58.269	58.269	15.346	47.956	47.956
2	2.061	6.439	64.708	2.061	6.439	64.708	4.267	13.334	61.291
3	1.616	5.050	69.758	1.616	5.050	69.758	1.893	5.915	67.206
4	1.443	4.510	74.269	1.443	4.510	74.269	1.738	5.433	72.638
5	1.203	3.759	78.028	1.203	3.759	78.028	1.725	5.390	78.028
6	.987	3.083	81.112						
7	.810	2.530	83.642						
8	.733	2.291	85.933						
9	.656	2.050	87.983						
10	.526	1.644	89.627						
11	.476	1.487	91.114						
12	.402	1.256	92.370						
13	.354	1.105	93.476						
14	.291	.909	94.385						
15	.277	.866	95.251						
16	.219	.684	95.934						
17	.180	.561	96.496						
18	.145	.455	96.950						
19	.132	.412	97.363						
20	.128	.401	97.764						
21	.111	.346	98.110						
22	.108	.337	98.447						
23	.090	.280	98.727						
24	.082	.257	98.984						
25	.079	.248	99.233						
26	.054	.168	99.400						
27	.046	.144	99.544						
28	.043	.133	99.677						
29	.032	.100	99.778						
30	.029	.091	99.869						
31	.024	.076	99.945						
32	.017	.055	100.000						

Extraction Method: Principal Component Analysis.

Figure 7. Indicators of Institutional Development, Total variance explained

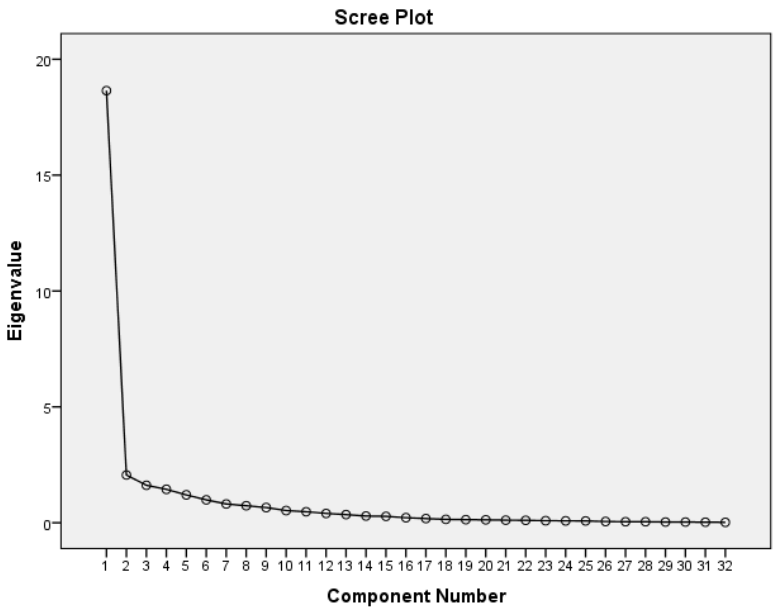


Figure 8. Factor analysis results for Institutional development, Scree Plot

To make sure all the selected factors are loaded on one dimension, a factor analysis test was performed. As we can see based on the Eigenvalue and Scree plot, all the factors are being loaded on one factor, which is *institutional development*.

4.2.3 Institutional Uncertainty in Host Country:

The second dimension of the RIC is institutional uncertainty in the host country. Many researchers have measured environmental uncertainty with indicators such as rate of inflation or changes in GDP (Möllering & Stache, 2007). However, at this point, this research was looking for a set of indicators with a comprehensive view of uncertainty beyond just economic or political factors. The Political Instability Index developed by The Economist Intelligent Unit has 15

indicators in two major domains, Underlying Vulnerability & Economic Distress, was a good option. Unfortunately, this database was produced solely for two years: 2007 and 2009. Therefore, a database with similar coverage is needed for a broader year range. The Fragile States Index is a database with those characteristics. Produced by "The Fund For Peace" organization and published by "Foreign Policy", it ranks 178 nations annually since 2005 based on their levels of stability and the pressures they face. The Fragile States Index collects and categorizes data for every country based on 12 political, social and economic key indicators and over 100 sub-indicators. The Fragile States Index has been used previously, especially in Economics and Public Policy fields (Burt, Hughes, & Milante, 2014; Guinn & Straussman, 2015; Kaplan, 2014; Woolcock, 2014). The 12 indicators of The Fragile States Index in main three groups are shown in table 10.

Table 10. Indicators and sub-indicators of Fragile States Index database

Category	Indicators	Sub-Indicators
Social Indicators	Demographic pressures	Natural disasters, Disease, Environment, Pollution, Food Scarcity, Malnutrition, Water Scarcity, Population Growth, Youth Bulge, Mortality
	Refugees and IDPs1	Displacement, Refugee Camps, IDP Camps, Disease related to Displacement, Refugees per capita, IDPs per capita, Absorption capacity
	Group Grievance	Discrimination, Powerlessness, Ethnic Violence, Communal Violence, Sectarian Violence, Religious Violence
	Human Flight and Brain drain	Migration per capita, Human Capital, Emigration of Educated Population
Economic Indicators	Uneven Economic Development	GINI coefficient, Income Share of highest 10%, Income share of lowest 10%, Urban-Rural Service Distribution, Access to Improved Services, Slum Population

[1] IDPs: Internally Displaced Persons

Category	Indicators	Sub-Indicators
	Poverty and Economic Decline	Economic Deficit, Government Debt, Unemployment, Youth Employment, Purchasing Power, GDP per capita, GDP Growth, Inflation
Political and Military Indicators	State legitimacy	Corruption, Government Effectiveness, Political Participation, Electoral Process, Level of Democracy, Illicit Economy, Drug Trade, Protests and demonstrations, Power Struggles
	Public services	Policing, Criminality, Education Provision, Literacy, Water and Sanitation, Infrastructure, Quality Healthcare, Telephony, Internet Access, Energy Reliability, Roads
	Human rights and rule of law	Press Freedom, Civil Liberties, Political Freedom, Human Trafficking, Political prisoners, Incarceration, Religious Persecution, Torture, Execution
	Security Apparatus	Internal conflicts, Small Arms Proliferation, Riots, and Protests, fatalities from Conflict, Military Coups, Rebel Activity, Militancy, Bombings, Political Prisoners
	Factionalized Elites	Power Struggles, Defectors, Flawed Elections, Political Competition
	External intervention	Foreign Assistance, presence of peacekeepers, Presence of UN Missions, Foreign Military Intervention, Sanctions, Credit Rating

To make sure that selected measures represent the desired dimension of institutional uncertainty, the same process of pre-screening previously performed for Institutional Development and Global Competitiveness Report was performed here. The purpose of the screening process was to filter indicators aligned with the definition of institutional uncertainty. In this regard, either the framework suggested by Miller (1992) or identification of general environmental uncertainties (as already discussed in the literature review section) is used. At least one indicator in each

category was recognized and mentioned[1]. As a result, three out of the 12 indicators were not chosen based on relevance of their sub-indicators to the notion of institutional uncertainty (uneven economic development, public services, human rights and rules of law). These omitted indicators were not representing the pace of institutionalization as we refer to as institutional uncertainty and were mostly representing concept of institutional development.

Table 11. Indicators selected from The Fragile States Index representing different dimensions of Institutional Uncertainty

Uncertainty source	**Correlated dimension from Fragile State Index**
Political uncertainties	12- External Interventions 7-State legitimacy 10- Security Apparatus
Government Policy uncertainties	11-factionalized elites
Macroeconomics uncertainties	6- Poverty and economic decline
Social uncertainties	1-Demographic pressures 2- Refugees and IDPs 3- Human flight and brain drain 4- Group grievance
Natural Uncertainties	1-Demographic pressures

A factor analysis was performed on nine indicators for the year 2013 to test the validity and reliability of measures of institutional uncertainty. It was expected that all factors load in one major component. The result of the analysis shows that all the factors were loading on one major component with an Eigenvalue of 6.95. The scree plot result comes as follows:

[1] Unfortunately, unlike Global Competitiveness Report, access to sub-indicators of Fragile States Index did not become possible, so I had to move forward with aggregated indicators. Performing the screening process with sub-indicators instead on aggregated indicators will result in a better representation of Institutional Uncertainty.

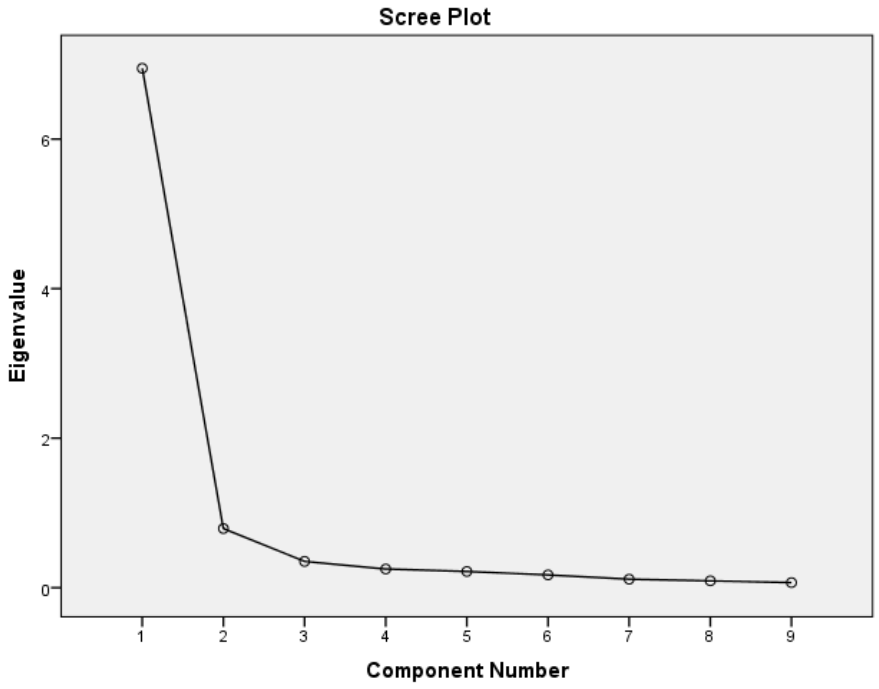


Figure 9. Scree Plot- factor analysis for indicators of institutional uncertainty

4.2.4 Institutional Distance between Host and Home Countries:

The last dimension of the RIC is the *institutional distance* between home and host countries. Institutional distance effects have been measured in different ways especially on the international behavior of firms (e.g. Henisz, 2000; Kogut & Singh, 1988; Salomon & Wu, 2012). However, the focus of most of the studies has been on one dimension of institutional distance or a sub-set of it (Salomon & Wu, 2012). Hence, this research used Worldwide Governance Indicators (WGI),

developed by World Bank, as the primary source of measuring differences between national institutions. The index measures six dimensions: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, the rule of law and control of corruption. The six aggregate indicators are based on 31 underlying data sources reporting the perceptions of governance of a vast number of survey respondents and expert assessments worldwide (Kaufmann, Kraay, & Mastruzzi, 2010). WGI is a commonly used index for the international business research to study the effect of institutional environment (e.g. Duanmu, 2011; Ramasamy, Yeung, & Laforet, 2012)

To measure the institutional distance between home and host countries (showing similarity or dissimilarity of the institutional profile of two countries), the aggregated institutional index for the year 2013 was computed for each home and host country, and the institutional distance was brought into the analysis as an absolute value of the difference between the two.

The created database includes pairs of more than 200 countries, which due to its size, cannot be completely presented here. Based on our methods of analysis in this dataset, the institutional distance between two countries can have a theoretical value between 0 and 30; 0 showing the absolute similarity, and 30 showing the absolute institutional difference in country institutional profiles.

Table 12 represents a summary of results after compiling data for institutional distance for a sample of 42 countries.

Table 12. Institutional distance between country pairs, calculated and compiled based on data from WGI (2013)

Country	ARGENTINA	BELARUS	BRAZIL	CAMEROON	CANADA	CHILE	CHINA	CUBA	ETHIOPIA	FINLAND	FRANCE	GEORGIA	GERMANY	GHANA	GREECE	HONG KONG	HUNGARY	INDIA	INDONESIA	IRAN	ITALY	JAPAN	KOREA, REP.	KUWAIT	LEBANON	MEXICO	NETHERLANDS	NEW ZEALAND	NORWAY	PAKISTAN	QATAR	SAUDI ARABIA	SUDAN	SWEDEN	SWITZERLAND	TURKEY	UKRAINE	UAE	UK	UNITED STATES	ZIMBABWE
ARGENTINA	0.0																																							
BELARUS	3.6	0.0																																						
BRAZIL	1.5	5.1	0.0																																					
CAMEROON	3.6	0.1	5.2	0.0																																				
CANADA	10.0	13.5	8.4	13.6	0.0																																			
CHILE	8.1	11.7	6.6	11.7	1.9	0.0																																		
CHINA	1.3	2.3	2.8	2.4	11.3	9.4	0.0																																	
CUBA	2.5	1.0	4.1	1.1	12.5	10.6	1.2	0.0																																
ETHIOPIA	2.6	0.9	4.2	1.0	12.6	10.7	1.3	0.1	0.0																															
FINLAND	11.1	14.7	9.6	14.8	1.2	3.0	12.4	13.7	13.8	0.0																														
FRANCE	7.9	11.5	6.4	11.6	2.0	0.2	9.2	10.5	10.6	3.2	0.0																													
GEORGIA	3.1	6.7	1.6	6.8	6.9	5.0	4.4	5.7	5.8	8.0	4.8	0.0																												
GERMANY	9.3	12.9	7.8	12.9	0.7	1.2	10.6	11.8	11.9	1.8	1.4	6.2	0.0																											
GHANA	1.9	5.4	0.3	5.5	8.1	6.2	3.2	4.4	4.5	9.3	6.1	1.3	7.4	0.0																										
GREECE	3.5	7.0	1.9	7.1	6.5	4.6	4.8	6.0	6.1	7.7	4.5	0.4	5.8	1.6	0.0																									
HONG KONG	9.0	12.5	7.4	12.6	1.0	0.9	10.3	11.5	11.6	2.2	1.0	5.8	0.3	7.1	5.5	0.0																								
HUNGARY	4.5	8.1	3.0	8.2	5.4	3.6	5.8	7.1	7.2	6.6	3.4	1.4	4.8	2.7	1.1	4.4	0.0																							
INDIA	0.5	4.1	1.0	4.2	9.5	7.6	1.8	3.0	3.2	10.6	7.4	2.6	8.8	1.3	3.0	8.4	4.0	0.0																						
INDONESIA	0.2	3.4	1.7	3.5	10.2	8.3	1.1	2.4	2.5	11.3	8.1	3.3	9.5	2.0	3.7	9.1	4.7	0.7	0.0																					
IRAN	4.0	0.5	5.6	0.4	14.0	12.1	2.7	1.5	1.4	15.2	12.0	7.2	13.3	5.9	7.5	13.0	8.6	4.5	3.8	0.0																				
ITALY	3.9	7.5	2.4	7.5	6.1	4.2	5.2	6.4	6.5	7.2	4.0	0.8	5.4	2.0	0.4	5.1	0.6	3.4	4.1	7.9	0.0																			
JAPAN	8.3	11.8	6.7	11.9	1.7	0.2	9.6	10.8	10.9	2.9	0.3	5.2	1.0	6.4	4.8	0.7	3.7	7.8	8.5	12.3	4.4	0.0																		
KOREA, REP.	5.7	9.3	4.2	9.4	4.3	2.4	7.0	8.2	8.3	5.4	2.2	2.6	3.6	3.8	2.2	3.3	1.2	5.2	5.9	9.7	1.8	2.6	0.0																	
KUWAIT	0.9	4.4	0.7	4.5	9.1	7.2	2.1	3.4	3.5	10.3	7.1	2.3	8.4	1.0	2.6	8.1	3.7	0.3	1.0	4.9	3.0	7.4	4.9	0.0																
LEBANON	1.2	2.4	2.7	2.5	11.2	9.3	0.1	1.3	1.5	12.3	9.1	4.3	10.5	3.1	4.7	10.2	5.7	1.7	1.0	2.8	5.1	9.5	6.9	2.0	0.0															
MEXICO	1.2	4.8	0.3	4.9	8.8	6.9	2.5	3.8	3.9	9.9	6.7	1.9	8.1	0.6	2.3	7.7	3.3	0.7	1.4	5.2	2.7	7.1	4.5	0.4	2.4	0.0														
NETHERLANDS	10.4	14.0	8.9	14.0	0.4	2.3	11.7	12.9	13.0	0.7	2.5	7.3	1.1	8.5	6.9	1.4	5.9	9.9	10.6	14.4	6.5	2.1	4.7	9.5	11.6	9.2	0.0													
NEW ZEALAND	10.8	14.4	9.3	14.5	0.8	2.7	12.1	13.3	13.5	0.3	2.9	7.7	1.5	9.0	7.3	1.9	6.3	10.3	11.0	14.8	6.9	2.5	5.1	10.0	12.0	9.6	0.4	0.0												
NORWAY	11.0	14.5	9.4	14.6	1.0	2.9	12.3	13.5	13.6	0.2	3.0	7.8	1.7	9.1	7.5	2.0	6.4	10.4	11.1	15.0	7.1	2.7	5.3	10.1	12.2	9.7	0.6	0.1	0.0											
PAKISTAN	2.7	0.8	4.3	0.9	12.7	10.8	1.4	0.2	0.1	13.9	10.7	5.9	12.0	4.6	6.2	11.7	7.3	3.2	2.5	1.3	6.6	11.0	8.4	3.6	1.5	3.9	13.1	13.5	13.7	0.0										
QATAR	4.7	8.2	3.1	8.3	5.3	3.4	6.0	7.2	7.3	6.5	3.3	1.5	4.6	2.8	1.2	4.3	0.1	4.1	4.8	8.7	0.8	3.6	1.0	3.8	5.8	3.4	5.7	6.2	6.3	7.4	0.0									
SAUDI ARABIA	0.0	3.6	1.5	3.6	10.0	8.1	1.3	2.5	2.6	11.1	7.9	3.1	9.3	1.9	3.5	9.0	4.5	0.5	0.2	4.0	3.9	8.3	5.7	0.9	1.2	1.2	10.4	10.8	11.0	2.7	4.7	0.0								
SUDAN	6.1	2.5	7.6	2.4	16.0	14.2	4.8	3.5	3.4	17.2	14.0	9.2	15.4	7.9	9.5	15.0	10.6	6.6	5.9	2.0	10.0	14.3	11.8	6.9	4.9	7.3	16.5	16.9	17.0	3.3	10.7	6.1	0.0							
SWEDEN	11.1	14.7	9.6	14.8	1.1	3.0	12.4	13.7	13.8	0.0	3.2	8.0	1.8	9.3	7.6	2.2	6.6	10.6	11.3	15.2	7.2	2.8	5.4	10.3	12.3	9.9	0.7	0.3	0.2	13.9	6.5	11.1	17.2	0.0						
SWITZERLAND	10.4	14.0	8.9	14.1	0.5	2.3	11.7	13.0	13.1	0.7	2.5	7.3	1.1	8.6	7.0	1.5	5.9	9.9	10.6	14.5	6.5	2.2	4.7	9.6	11.6	9.2	0.0	0.4	0.5	13.2	5.8	10.4	16.5	0.7	0.0					
TURKEY	2.1	5.7	0.6	5.8	7.8	5.9	3.4	4.7	4.8	9.0	5.8	1.0	7.1	0.3	1.3	6.8	2.4	1.6	2.3	6.2	1.8	6.1	3.6	1.3	3.3	0.9	8.2	8.7	8.8	4.9	2.5	2.2	8.2	9.0	8.3	0.0				
UKRAINE	2.1	1.5	3.7	1.5	12.1	10.2	0.8	0.4	0.5	13.3	10.1	5.2	11.4	4.0	5.6	11.1	6.6	2.6	1.9	1.9	6.0	10.4	7.8	3.0	0.9	3.3	12.5	12.9	13.1	0.6	6.8	2.1	4.0	13.2	12.5	4.3	0.0			
UAE	4.3	7.8	2.7	7.9	5.7	3.8	5.6	6.8	6.9	6.9	3.7	1.2	5.0	2.4	0.8	4.7	0.3	3.8	4.5	8.3	0.4	4.0	1.4	3.4	5.5	3.1	6.1	6.5	6.7	7.0	0.4	4.3	10.3	6.8	6.2	2.1	6.4	0.0		
UK	9.3	12.9	7.8	13.0	0.7	1.2	10.6	11.9	12.0	1.8	1.4	6.2	0.0	7.5	5.9	0.4	4.8	8.8	9.5	13.4	5.4	1.1	3.6	8.5	10.5	8.1	1.1	1.5	1.6	12.1	4.7	9.3	15.4	1.8	1.1	7.2	11.4	5.1	0.0	
UNITED STATES	8.1	11.6	6.5	11.7	1.9	0.0	9.4	10.6	10.7	3.1	0.1	5.0	1.2	6.2	4.6	0.9	3.5	7.6	8.3	12.1	4.2	0.2	2.4	7.2	9.3	6.9	2.3	2.7	2.9	10.8	3.4	8.1	14.1	3.0	2.4	5.9	10.2	3.8	1.3	0.0
ZIMBABWE	5.8	2.3	7.4	2.2	15.8	13.9	4.5	3.3	3.2	17.0	13.8	9.0	15.1	7.7	9.3	14.8	10.4	6.3	5.6	1.8	9.7	14.1	11.5	6.7	4.6	7.0	16.2	16.6	16.8	3.1	10.5	5.8	0.2	16.9	16.3	8.0	3.7	10.1	15.2	13.9	0.0

The following table shows a summary of databases used in the research to this point.

Table 13. Summary of databases used for measuring each dimension

Dimension	**Sources**	**Main Items in Database**
Institutional Uncertainty	"Fragile States Index" By "The Fund For Peace & Foreign Policy"	Demographic pressures, refugee and Internally Displaced Persons, Group grievance, human flight and brain drain, uneven economic development, poverty and economic decline, state legitimacy, public services, human rights and the rule of law, Security Apparatus, Factionalized Elites, external Interventions
Institutional Development	"Global Competitiveness Ranking" by "The World Economic Forum"	Institutions, infrastructure, Macro-economy, health and primary education, higher education and training, market efficiency, technological readiness, business sophistication, innovation
Institutional Distance	"Worldwide Governance Indicators (WGI)" by "World Bank"	Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption

The calculated indices for institutional development and institutional uncertainty for the years 2011-2013 are shown in the appendix.

4.3 Compiling Data for Relative Institutional Challenge:

In this part of our analysis, we compile three different dimensions based on already measured factors and make our aggregate construct of the RIC. Here is some problem we should address before performing the compiling:

- Datasets are different in their representations: while institutional development and Institutional uncertainty in the host country represent the data for a country, institutional distance shows the relative information between two countries. As the RIC similarly represents the data for country pairs, we should make sure that our data for institutional development and institutional uncertainty are also represented for all possible country pairs.
- Datasets have different scales and need to be standardized: our three different datasets are using different scales of data with different range and different standard deviation, so we need to standardize all the data before compiling them.
- The effect direction on Relative Institutional Challenge: while institutional uncertainty and institutional distance have the same effect direction on RIC (higher levels of both means higher levels of the RIC), institutional development shows a reverse effect (higher levels of institutional development means lower levels of RIC). We fix this effect by using a reverse scale of institutional development, where higher levels of that scale means lower levels of institutional development.

To fix these problems, the following steps were performed, ensuring the homogeneity of datasets:

1- Reversing the dataset for institutional development to make sure all dimensions are representing the same direction: this part was done by going through all the indicators used for measuring institutional development and reversing all of them. Rating measures, which usually were done on a score from 1 to 7 (7 being the best), were reversed by deducting the value from 7. As a result, they were at the same rating, with the difference that seven was representing the worst or lowest condition. For the nominal factors such as GDP per capita, the highest number represented the best situation; we inverted the value so that the largest number represented the worst. After reversing had been done, we aggregated data from the selected indicators to have a new measure of the institutional development of the host country. As we planned, with this new measure, higher scores mean lower levels of development and hence higher levels of RIC.

2- Filtering datasets to include the same set of countries: due to differences in number and range of countries in the datasets used in this research, it is needed to filter them to make sure the final version includes all the common countries. It was performed first by, comparing datasets two-by-two, and by then performing a final check with a comparison on three datasets. As a result, a set of 147 countries were identified from all three datasets as being mutual countries.

3- Standardizing all the data sets: all datasets were standardized to have the same basis for aggregation. To represent the magnitude of our final construct, the standardized value for all data was amplified by ten.

4- Transforming datasets as datasets available for pairs of countries: To be able to do the aggregation, all datasets were transformed to datasets for pairs of countries. It does not add

any data to the standardized dataset at this point, but it makes the aggregation process feasible as we did it using the MS Excel software.

5- Aggregating the modified data set and producing the RIC dataset.

All of the mentioned steps were done for our datasets for the year 2013. After a rigorous set of work with available data, the RIC was compiled for a set of 147 countries. Due to the enormous size of the measured index, it is not possible to show all of it in this research. A summary of compiled data is presented in following sections.

Calculated index of RIC is an index theoretically varying between -100 and 100. Negative indicators show lower levels of RIC, while the positive section represents higher levels of RIC. As it was discussed earlier, the RC does not represent a symmetrical relationship. Therefore, the RIC of country A as faced by a firm from country B is different from the RIC of country B as perceived by a firm from country A.

A detailed version of the RIC index, calculated for the year 2013 for a set of 72 countries, is presented in Appendix. It should be mentioned that the index has been calculated carefully for the years 2011, 2012 and 2013, but due to the enormous size of the tables, the results could not be provided in the report. Table 14 represents a sample of compiled index of RIC for the year 2013.

Table 14. Sample of Compiled Relative Institutional Challenge Index for the year 2013

Host country / Home country	Argentina	Australia	Austria	Belgium	Bolivia	Brazil	Cameroon	Canada	China	Colombia	Croatia	Denmark	Egypt	Finland	France	Germany	Greece	India	Ireland	Italy	Japan	Jordan	Korea, Rep.	Lebanon	Mexico	Morocco	Netherlands	Norway	Portugal	Qatar	Russian Federation	Seychelles	Singapore	Spain	Sweden	Switzerland	Turkey	Ukraine	United Arab Emirates	United Kingdom	United States	Zimbabwe
Argentina	N.A	-19.9	-19.5	-19.6	0.3	-11.3	13.1	-21.9	-12.6	-3.2	-5.7	-17.8	9.1	-27.8	-19.4	-22.1	-7.1	-13.0	-22.0	-9.2	-21.1	-13.7	-17.1	7.3	-9.4	-12.7	-21.6	-22.7	-16.0	-30.6	0.6	-9.8	-27.4	-12.3	-24.8	-25.2	-10.7	-0.9	-27.8	-22.7	-21.1	25.1
Australia	11.5	N.A	-44.8	-40.4	26.5	5.7	39.3	-48.1	13.6	21.4	-1.1	-44.0	35.2	-54.0	-34.6	-45.6	0.8	12.8	-44.1	-6.4	-40.3	6.9	-21.2	33.5	11.2	13.0	-47.7	-48.9	-25.7	-34.4	26.8	0.7	-53.0	-18.0	-51.0	-51.4	7.7	25.2	-28.6	-44.4	-37.7	51.3
Austria	11.1	-45.6	N.A	-40.8	26.1	5.3	38.8	-47.6	13.1	21.0	-1.5	-43.5	34.8	-53.5	-35.0	-46.0	0.4	12.4	-44.5	-6.8	-40.7	6.5	-21.7	33.0	10.8	12.5	-47.3	-48.5	-26.2	-34.8	26.3	0.3	-53.1	-18.4	-50.5	-51.0	7.3	24.8	-29.0	-44.8	-38.1	50.9
Belgium	8.9	-43.4	-43.0	N.A	23.8	3.1	36.6	-45.4	10.9	18.8	-3.7	-41.3	32.6	-51.3	-37.2	-45.6	-1.8	10.2	-45.5	-9.0	-43.0	4.3	-23.9	30.8	8.6	10.3	-45.1	-46.2	-28.4	-37.1	24.1	-2.0	-50.9	-20.7	-48.3	-48.7	5.1	22.6	-31.2	-46.2	-40.3	48.7
Bolivia	-12.1	-17.3	-17.0	-17.0	N.A	-8.8	10.6	-19.4	-15.0	-0.7	-3.1	-15.3	6.5	-25.3	-16.9	-19.5	-4.6	-10.5	-19.4	-6.6	-18.6	-11.2	-14.6	4.7	-6.8	-10.2	-19.0	-20.2	-13.5	-28.0	-2.0	-7.2	-24.8	-9.7	-22.2	-22.7	-8.2	-3.5	-25.3	-20.1	-18.6	22.6
Brazil	-10.1	-24.4	-24.1	-24.1	4.9	N.A	17.7	-26.5	-8.0	-0.2	-10.2	-22.4	13.6	-32.4	-24.0	-26.6	-11.7	-8.8	-26.5	-13.7	-25.7	-14.7	-21.7	11.8	-10.4	-8.6	-26.1	-27.3	-20.6	-35.2	5.1	-14.3	-31.9	-16.8	-29.3	-29.8	-13.9	3.6	-32.4	-27.2	-25.7	29.7
Cameroon	-6.9	-12.1	-11.8	-11.8	3.0	-3.6	N.A	-14.2	-9.8	4.5	2.1	-10.1	2.0	-20.1	-11.7	-14.3	0.6	-5.3	-14.2	-1.4	-13.4	-6.0	-9.4	5.3	-1.6	-5.0	-13.8	-15.0	-8.3	-22.9	-1.2	-2.0	-19.6	-4.5	-17.0	-17.5	-3.0	-2.8	-20.1	-14.9	-13.4	17.4
Canada	12.0	-45.6	-44.4	-39.9	27.0	6.2	39.8	N.A	14.0	21.9	-0.6	-44.4	35.7	-54.4	-34.1	-45.1	1.3	13.3	-43.6	-5.9	-39.8	7.4	-20.8	33.9	11.7	13.4	-48.2	-49.4	-25.2	-33.9	27.2	1.2	-52.5	-17.5	-51.4	-51.9	8.2	25.7	-28.1	-43.9	-37.2	51.8
China	-12.2	-17.4	-17.1	-17.1	-2.2	-8.8	10.6	-19.4	N.A	-0.7	-3.2	-15.3	6.6	-25.3	-17.0	-19.6	-4.6	-10.5	-19.5	-6.7	-18.7	-11.2	-14.6	4.8	-6.9	-10.2	-19.1	-20.3	-13.5	-28.1	-1.9	-7.3	-24.9	-9.8	-22.3	-22.8	-8.3	-3.4	-25.3	-20.2	-18.6	22.7
Colombia	-13.9	-20.6	-20.3	-20.3	1.1	-12.1	13.9	-22.7	-11.9	N.A	-6.4	-18.6	9.8	-28.5	-20.2	-22.8	-7.9	-12.6	-22.7	-9.9	-21.9	-14.5	-17.9	8.0	-10.1	-12.4	-22.3	-23.5	-16.8	-31.3	1.3	-10.5	-28.1	-13.0	-25.5	-26.0	-11.5	-0.2	-28.6	-23.4	-21.9	25.9
Croatia	-3.9	-30.6	-30.3	-30.4	11.1	-9.6	23.9	-32.7	-1.8	6.1	N.A	-28.6	19.8	-38.6	-30.2	-32.8	-14.6	-2.6	-32.7	-20.0	-31.9	-8.4	-27.9	18.1	-4.2	-2.4	-32.4	-33.5	-26.8	-41.4	11.4	-14.7	-38.2	-23.1	-35.6	-36.0	-7.7	9.8	-38.6	-33.5	-31.9	35.9
Denmark	14.5	-43.1	-41.9	-37.5	29.4	8.7	42.2	-46.1	16.5	24.4	1.9	N.A	38.2	-56.9	-31.6	-42.6	3.8	15.8	-41.2	-3.4	-37.3	9.9	-18.3	36.4	14.2	15.9	-48.0	-51.9	-22.8	-31.5	29.7	3.7	-50.0	-15.0	-53.9	-53.0	10.7	28.2	-25.6	-41.4	-34.7	54.3
Egypt	-7.2	-12.4	-12.1	-12.1	2.7	-3.9	5.7	-14.5	-10.2	4.2	1.8	-10.4	N.A	-20.4	-12.0	-14.6	0.3	-5.6	-14.5	-1.7	-13.7	-6.3	-9.7	5.0	-2.0	-5.3	-14.2	-15.3	-8.6	-23.2	-1.5	-2.3	-20.0	-4.9	-17.4	-17.8	-3.3	-3.1	-20.4	-15.3	-13.7	17.7
Finland	15.4	-42.2	-41.0	-36.6	30.3	9.6	43.1	-45.2	17.4	25.3	2.8	-46.0	39.1	N.A	-30.7	-41.7	4.7	16.7	-40.3	-2.5	-36.5	10.8	-17.4	37.3	15.1	16.8	-47.1	-51.8	-21.9	-30.6	30.6	4.5	-49.1	-14.2	-53.6	-52.1	11.6	29.1	-24.7	-40.5	-33.8	55.2
France	6.0	-40.5	-40.2	-40.2	21.0	0.2	33.8	-42.5	8.0	15.9	-6.6	-38.5	29.7	-48.4	N.A	-42.7	-4.7	7.3	-42.6	-11.9	-41.8	1.4	-26.8	27.9	5.7	7.5	-42.2	-43.4	-31.2	-39.9	21.2	-4.8	-48.0	-23.5	-45.4	-45.9	2.2	19.7	-34.1	-43.3	-41.8	45.8
Germany	10.2	-44.7	-44.4	-41.7	25.2	4.4	38.0	-46.7	12.2	20.1	-2.4	-42.7	33.9	-52.6	-35.9	N.A	-0.5	11.5	-45.4	-7.7	-41.6	5.6	-22.6	32.1	9.9	11.7	-46.4	-47.6	-27.0	-35.7	25.4	-0.6	-52.2	-19.3	-49.6	-50.1	6.4	23.9	-29.9	-45.7	-39.0	50.0
Greece	-5.5	-29.0	-28.7	-28.7	9.4	-11.3	22.2	-31.0	-3.5	4.4	-14.8	-26.9	18.2	-36.9	-28.6	-31.2	N.A	-4.2	-31.1	-18.3	-30.3	-10.1	-26.2	16.4	-5.8	-4.1	-30.7	-31.9	-25.1	-39.7	9.7	-16.3	-36.5	-21.4	-33.9	-34.4	-9.3	8.2	-36.9	-31.8	-30.2	34.3
India	-14.5	-20.0	-19.7	-19.7	0.5	-11.5	13.3	-22.1	-12.4	-3.4	-5.8	-18.0	9.2	-28.0	-19.6	-22.2	-7.3	N.A	-22.1	-9.3	-21.3	-13.9	-17.3	7.5	-9.6	-12.9	-21.7	-22.9	-16.2	-30.8	0.8	-9.9	-27.5	-12.4	-25.0	-25.4	-10.9	-0.8	-28.0	-22.8	-21.3	25.3
Ireland	9.5	-44.0	-43.7	-42.4	24.5	3.7	37.3	-46.1	11.5	19.4	-3.1	-42.0	33.2	-52.0	-36.6	-46.2	-1.2	10.8	N.A	-8.4	-42.3	4.9	-23.3	31.4	9.2	11.0	-45.7	-46.9	-27.7	-36.4	24.7	-1.3	-51.5	-20.0	-48.9	-49.4	5.7	23.2	-30.6	-46.4	-39.7	49.3
Italy	-3.0	-31.5	-31.2	-31.3	12.0	-8.7	24.8	-33.6	-0.9	7.0	-15.6	-29.5	20.7	-39.5	-31.1	-33.7	-13.7	-1.7	-33.6	N.A	-32.8	-7.6	-28.8	19.0	-3.3	-1.5	-33.3	-34.4	-27.7	-42.3	12.3	-13.8	-39.1	-24.0	-36.5	-36.9	-6.8	10.7	-39.5	-34.4	-32.8	36.8
Japan	8.0	-42.5	-42.2	-42.2	23.0	2.2	35.8	-44.6	10.1	17.9	-4.6	-40.5	31.7	-50.5	-38.1	-44.7	-2.7	9.3	-44.6	-9.9	N.A	3.4	-24.8	29.9	7.7	9.5	-44.2	-45.4	-29.2	-37.9	23.2	-2.8	-50.0	-21.5	-47.4	-47.9	4.2	21.7	-32.1	-45.3	-41.2	47.8
Jordan	-11.9	-22.6	-22.3	-22.3	3.1	-14.1	15.9	-24.7	-9.9	-2.0	-8.4	-20.6	11.8	-30.6	-22.2	-24.8	-9.9	-10.6	-24.7	-11.9	-23.9	N.A	-19.9	10.0	-12.1	-10.4	-24.3	-25.5	-18.8	-33.3	3.3	-12.5	-30.1	-15.0	-27.5	-28.0	-13.5	1.8	-30.6	-25.4	-23.9	27.9
Korea, Rep.	0.5	-35.0	-34.7	-34.7	15.5	-5.3	28.3	-37.0	2.5	10.4	-12.1	-32.9	24.2	-42.9	-34.6	-37.2	-10.2	1.8	-37.1	-17.4	-36.3	-4.1	N.A	22.4	0.2	1.9	-36.7	-37.9	-31.2	-45.4	15.7	-10.3	-42.5	-27.4	-39.9	-40.4	-3.3	14.2	-39.6	-37.8	-36.3	40.3
Lebanon	-9.8	-15.0	-14.7	-14.7	0.1	-6.5	8.3	-17.1	-12.7	1.6	-0.8	-13.0	4.2	-22.9	-14.6	-17.2	-2.3	-8.2	-17.1	-4.3	-16.3	-8.9	-12.3	N.A	-4.5	-7.9	-16.7	-17.9	-11.2	-25.7	-4.1	-4.9	-22.5	-7.4	-19.9	-20.4	-5.9	-5.7	-23.0	-17.8	-16.3	20.3
Mexico	-11.9	-22.6	-22.3	-22.3	3.1	-14.1	15.9	-24.7	-9.8	-1.9	-8.4	-20.6	11.8	-30.6	-22.2	-24.8	-9.9	-10.6	-24.7	-11.9	-23.9	-16.5	-19.9	10.1	N.A	-10.4	-24.4	-25.5	-18.8	-33.4	3.4	-12.5	-30.2	-15.0	-27.6	-28.0	-13.5	1.8	-30.6	-25.5	-23.9	27.9
Morocco	-14.4	-20.1	-19.8	-19.8	0.6	-11.5	13.4	-22.1	-12.4	-3.5	-5.9	-18.0	9.3	-28.0	-19.7	-22.3	-7.3	-13.1	-22.2	-9.4	-21.4	-14.0	-17.4	7.5	-9.6	N.A	-21.8	-23.0	-16.3	-30.8	0.8	-10.0	-27.6	-12.5	-25.0	-25.5	-11.0	-0.7	-28.1	-22.9	-21.4	25.4
Netherlands	13.1	-44.4	-43.2	-38.8	28.1	7.3	40.9	-47.4	15.2	23.0	0.5	-45.6	36.8	-55.6	-33.0	-44.0	2.4	14.4	-42.5	-4.8	-38.7	8.5	-19.6	35.1	12.8	14.6	N.A	-50.5	-24.1	-32.8	28.4	2.3	-51.4	-16.4	-52.6	-53.0	9.3	26.8	-27.0	-42.8	-36.1	52.9
Norway	14.9	-42.7	-41.5	-37.1	29.8	9.1	42.6	-45.7	16.9	24.8	2.3	-46.5	38.6	-57.3	-31.2	-42.2	4.2	16.2	-40.7	-3.0	-36.9	10.3	-17.9	36.8	14.6	16.3	-47.6	N.A	-22.4	-31.1	30.1	4.1	-49.6	-14.6	-54.1	-52.6	11.1	28.6	-25.2	-41.0	-34.3	54.7
Portugal	3.3	-37.8	-37.5	-37.5	18.3	-2.5	31.0	-39.8	5.3	13.2	-9.3	-35.7	27.0	-45.7	-37.4	-40.0	-7.4	4.6	-39.9	-14.6	-39.1	-1.3	-29.5	25.2	3.0	4.7	-39.5	-40.7	N.A	-42.6	18.5	-7.5	-45.3	-26.2	-42.7	-43.2	-0.5	17.0	-36.8	-40.6	-39.0	43.1
Qatar	0.3	-34.8	-34.5	-34.6	15.3	-5.4	28.1	-36.9	2.4	10.3	-12.2	-32.8	24.0	-42.8	-34.4	-37.0	-10.3	1.6	-37.0	-17.5	-36.1	-4.2	-32.1	22.3	0.0	1.8	-36.6	-37.7	-31.0	N.A	15.6	-10.5	-42.4	-27.3	-39.8	-40.2	-3.5	14.0	-39.7	-37.7	-36.1	40.1
Russian Federation	-9.9	-15.1	-14.8	-14.8	0.0	-6.6	8.4	-17.1	-12.8	1.5	-0.9	-13.1	4.3	-23.0	-14.7	-17.3	-2.3	-8.3	-17.2	-4.4	-16.4	-9.0	-12.4	2.5	-4.6	-8.0	-16.8	-18.0	-11.3	-25.8	N.A	-5.0	-22.6	-7.5	-20.0	-20.5	-6.0	-5.7	-23.1	-17.9	-16.4	20.4
Seychelles	-6.8	-27.7	-27.4	-27.4	8.2	-12.6	21.0	-29.7	-4.8	3.1	-13.5	-25.7	16.9	-35.6	-27.3	-29.9	-14.9	-5.5	-29.8	-17.0	-29.0	-11.4	-25.0	15.1	-7.1	-5.3	-29.4	-30.6	-23.9	-38.4	8.4	N.A	-35.2	-20.1	-32.6	-33.1	-10.6	6.9	-35.7	-30.5	-29.0	33.0
Singapore	11.2	-45.7	-45.1	-40.7	26.2	5.4	39.0	-47.8	13.3	21.2	-1.4	-43.7	34.9	-53.7	-34.9	-45.9	0.5	12.5	-44.4	-6.7	-40.6	6.6	-21.5	33.2	10.9	12.7	-47.5	-48.6	-26.0	-34.7	26.5	0.4	N.A	-18.3	-50.7	-51.1	7.4	24.9	-28.9	-44.7	-38.0	51.0
Spain	1.3	-35.8	-35.5	-35.5	16.3	-4.5	29.1	-37.8	3.3	11.2	-11.3	-33.8	25.0	-43.7	-35.4	-38.0	-9.4	2.6	-37.9	-16.6	-37.1	-3.3	-31.5	23.2	1.0	2.8	-37.5	-38.7	-32.0	-44.6	16.5	-9.5	-43.3	N.A	-40.7	-41.2	-2.5	15.0	-38.8	-38.6	-37.1	41.1
Sweden	14.8	-42.8	-41.6	-37.2	29.8	9.0	42.5	-45.8	16.8	24.7	2.2	-46.6	38.5	-57.2	-31.3	-42.3	4.1	16.1	-40.8	-3.1	-37.0	10.2	-18.0	36.7	14.5	16.2	-47.7	-52.2	-22.5	-31.1	30.0	4.0	-49.7	-14.7	N.A	-52.7	11.0	28.5	-25.3	-41.1	-34.4	54.6
Switzerland	13.8	-43.8	-42.6	-38.1	28.8	8.0	41.6	-46.7	15.8	23.7	1.2	-46.2	37.5	-56.2	-32.3	-43.3	3.1	15.1	-41.8	-4.1	-38.0	9.2	-19.0	35.7	13.5	15.2	-48.7	-51.2	-23.4	-32.1	29.0	3.0	-50.7	-15.7	-53.2	N.A	10.0	27.5	-26.3	-42.1	-35.4	53.6
Turkey	-10.8	-23.7	-23.4	-23.4	4.2	-15.2	17.0	-25.8	-8.8	-0.9	-9.5	-21.7	12.9	-31.6	-23.3	-25.9	-11.0	-9.5	-25.8	-13.0	-25.0	-15.4	-21.0	11.1	-11.1	-9.3	-25.4	-26.6	-19.9	-34.4	4.4	-13.6	-31.2	-16.1	-28.6	-29.1	N.A	2.9	-31.7	-26.5	-25.0	29.0
Ukraine	-9.9	-15.1	-14.7	-14.8	0.0	-6.5	8.3	-17.1	-12.8	1.6	-0.9	-13.0	4.3	-23.0	-14.6	-17.3	-2.3	-8.2	-17.2	-4.4	-16.4	-8.9	-12.3	2.5	-4.6	-7.9	-16.8	-18.0	-11.2	-25.8	-4.1	-5.0	-22.6	-7.5	-20.0	-20.5	-5.9	N.A	-23.0	-17.9	-16.3	20.4
United Arab Emirate	-1.2	-33.3	-33.0	-33.0	13.8	-7.0	26.6	-35.4	0.9	8.7	-13.8	-31.3	22.5	-41.3	-32.9	-35.5	-11.9	0.1	-35.4	-19.1	-34.6	-5.8	-30.6	20.7	-1.5	0.3	-35.0	-36.2	-29.5	-44.1	14.0	-12.0	-40.8	-25.7	-38.2	-38.7	-5.0	12.5	N.A	-36.1	-34.6	38.6
United Kingdom	9.3	-43.8	-43.5	-42.7	24.3	3.5	37.0	-45.8	11.3	19.2	-3.3	-41.7	33.0	-51.7	-36.8	-46.0	-1.4	10.6	-45.9	-8.6	-42.5	4.7	-23.5	31.2	9.0	10.7	-45.5	-46.7	-28.0	-36.6	24.5	-1.5	-51.3	-20.2	-48.7	-49.2	5.5	23.0	-30.8	N.A	-39.9	49.1
United States	6.7	-41.2	-40.9	-40.9	21.7	0.9	34.5	-43.3	8.8	16.6	-5.9	-39.2	30.4	-49.2	-39.4	-43.4	-4.0	8.0	-43.3	-11.2	-42.5	2.1	-26.0	28.7	6.4	8.2	-42.9	-44.1	-30.5	-39.2	21.9	-4.1	-48.7	-22.8	-46.1	-46.6	2.9	20.4	-33.4	-44.0	N.A	46.5
Zimbabwe	-1.6	-6.8	-6.5	-6.5	8.3	1.8	10.7	-8.8	-4.5	9.9	7.4	-4.7	7.3	-14.7	-6.4	-9.0	6.0	0.1	-8.9	3.9	-8.1	-0.7	-4.1	10.7	3.7	0.3	-8.5	-9.7	-3.0	-17.5	4.1	3.3	-14.3	0.8	-11.7	-12.2	2.3	2.5	-14.8	-9.6	-8.0	N.A

Part II: The Effects of Relative Institutional Challenge: Empirical testing

5 Relative Institutional Challenge and FDI Ownership Structure: Hypotheses Development

5.1 Entry Mode and FDI Ownership: a Literature Review

International entry mode has been a central strand of research in the international business field with debates on different research perspectives (Anil, Tatoglu, & Ozkasap, 2014; Hennart & HL Slangen, 2015; Shaver, 2013). In the second part of this thesis, the practical applications of the RIC construct as a newly developed construct and its relationship with foreign firms' ownership structure as the dependent variable is being discussed.

Research on international entry mode centers largely on the issue of boundary establishment for firms in foreign markets. Research on firm entry mode choices is based on antecedents and consequences in two forms of contractual or equity-based decisions for entering a foreign market (Keith D. Brouthers & Hennart, 2007; Shaver, 2013).

Firms can enter new markets in two main forms: via contractual agreements, or through expanding abroad with equity-based decisions. Contractual forms include international entry through distribution contracts, licensing contracts, franchising contracts and even managing contracts. The latter category of foreign market entry involves setting up sales or manufacturing subsidiaries and/or company-owned outlets (Keith D. Brouthers & Hennart, 2007; Hennart & HL Slangen, 2015).

Therefore, firms intending to internationalize and enter a new foreign market should answer two main questions. First, what type of entry mode should they choose? This issue leads firms to choose between non-equity entry modes, such as exporting and contractual mode and equity-based entry modes such as wholly owned subsidiary (WOS) and joint ventures (JV). Each of these modes differs in the level of resource commitment, risk, and control (Anil *et al.*, 2014; Keith D. Brouthers & Hennart, 2007). The second question involves a decision between acquiring forms of establishment and establishing a new venture (Greenfield investment) (Anil et al., 2014; Dikova & Van Witteloostuijn, 2007).

Research on entry mode has been done extensively from different perspectives to a point that even some scholars such as Shaver (2013) raised the question of "Do we need more entry mode research?" A vast number of entry mode choices have been examined in research. For example, Brouthers & Hennart (2007) identified 16 different types of entry mode that have been used in previous studies. However, the most commonly explored choice is WOS and JVs (Keith D. Brouthers & Hennart, 2007).

5.2 Institutional Determinants of Entry Mode

Like other questions regarding international strategies of the firms, two sets of firm-specific and environmental factors influence the choice of entry mode. The entry mode decision of enterprises has been discussed in the literature from different perspectives and theoretical backgrounds, mainly the transaction cost theory, the resource-based view, institutional theory, and Dunning's eclectic framework (Keith D. Brouthers & Hennart, 2007; Cumberland, 2006). However, the effects of institutions on firms' international entry mode have been mostly viewed in two main perspectives: the transaction cost theory, and institutional theory (Cumberland, 2006;

Hernández & Nieto, 2015). This current research focuses on institutional theory as its main theoretical background on explaining the entry mode.

It has been argued that the institutional context of a host country directly determines foreign firms' competitive strategies (Brouthers, 2002; Ingram & Silverman, 2002). However, the effects of country-specific determinants on entry mode have been investigated in a broad spectrum. The impact of nature of institutions in a host country, the state of the institutions (level of development and uncertainty), and the level of similarity of the institutions between home and host countries have been examined in entry mode research.

A country's institutional environment defines the "rules of game" by which firms participate in a particular market (North, 1990). Some studies in this area focus on the effects of the institutional environment of a home country on entry mode (Pan, 2002). However, most of the research in exploring institutional effects on entry decisions have focused on a host country's institutional environment or home and host country differences at a cultural or institutional level (Brouthers, 2002; Keith D. Brouthers & Hennart, 2007). Institutional theory has been applied to entry mode choice decisions in a vast range of models. The used models vary from relatively simple models of host country attractiveness, risk and uncertainty perceptions, to more theoretically based research such as institutional distance, including magnitude or combination of magnitude and direction (Dikova & Van Witteloostuijn, 2007; Hernández & Nieto, 2015; López-Duarte & Vidal-Suárez, 2010). Research on entry mode using new institutional theory has been enriched largely based on three pillars, regulatory, cognitive and normative (Scott, 2001). Researchers have used this concept to explore environmental factors that should be considered in entry mode.

Research shows that all three dimensions of institutions have a direct effect on entry mode (Yiu & Makino, 2002). However, some researchers have focused on just one aspect of the institutional environment such as cognitive dimension and their impact on entry mode (Brouthers, 2002; Davis *et al.*, 2000; Dikova & Van Witteloostuijn, 2007). Most of the studies in this regard agreed on the important role of conformity to isomorphic institutional pressure in mode selection (Keith D. Brouthers & Hennart, 2007). Another main area of research looks at the regulatory dimension of the firm and its effects on entry modes. These studies emphasize the regulatory dimension as a key explanatory factor in mode selection (Brouthers, 2002; Hernández & Nieto, 2015; K. E. Meyer & Nguyen, 2005).

The effect of distance between home and host countries has also been an important branch of entry mode research. Related studies at the beginning focused mainly on effects of cultural distance between host and home countries and their effects of entry mode (Keith D. Brouthers & Hennart, 2007; Kogut & Singh, 1988; Yiu & Makino, 2002). Later, by the introduction of concepts of institutional profile and institutional distance, researchers used them as a powerful tool to examine institutional effects on entry mode (Hernández & Nieto, 2015; Schwens *et al.*, 2011; Xu & Shenkar, 2002).

As the institutional distance between the home and the host countries increases, challenges, risks and costs of doing business in the host country also increase (Xu & Shenkar, 2002). As institutional distance increases, firms find it harder to transfer their established business and management practices to the new context. Adapting to different local practices and preferences is another difficult issue for internationalized firms in such situations (Schwens *et al.*, 2011).

5.2.1 Effects of Institutional Development and Uncertainty of Host Country on Entry Mode:

The quality and nature of institutional contexts directly affect firms' strategies. The level of institutional development and uncertainty in a given host country shows a significance influence on firms' international strategies such as entry mode and ownership strategies (Anil *et al.*, 2014; K. E. Meyer, Estrin, Bhaumik, & Peng, 2009; Peng & Luo, 2000). Institutional contexts, which possess strong, established and certain institutions, provide support for efficient business transactions. More specifically weak institutions, especially when they are formal institutions, may cause many institutional restrictions and constraints (Peng, 2000; Schwens *et al*., 2011). The result of these restrictions will be a higher institutional risk of the host country, creating greater challenges for foreign firms in adapting their business practices to "insufficiently functioning political, legal, or economic institutions" (Schwens *et al*., 2011, p. 333).

Research shows that in the case of institutional uncertainty and unpredictability, foreign firms tend to use entry modes with a lower level of resource commitment (e.g. JV over WOS) to share the risk and ensure flexibility (Brouthers, 2002). A similar case is present for institutional development. Countries with a low level of institutional development, which are weak in established infrastructure and suffer from inadequate means to enforce laws and contracts, will create adaptation problems for foreign firms who will face a deficit of institutional knowledge. As a response, foreign companies might try to establish personal ties and networks with managers from other firms and government officials. In such cases, the involvement of local actors is inevitable. Hence, firms will prefer modes of entry such as JV to WOS (Anil *et al.*, 2014; Hernández & Nieto, 2015; Peng & Luo, 2000).

However, even working in institutional contexts of host countries with a low level of development and a high level of uncertainty, some firms might face a less difficult situation for coping with the associated risk. If firms are familiar with uncertain environments or those where "rules of game" are not clearly established in their home countries, they will face a lower level of challenges in the host countries with similar conditions. A good example of this situation can be observed in MNCs from developing economies that internationalize to other developing economy (Anil *et al.*, 2014; Hernández & Nieto, 2015).

5.2.2 Entry Mode, Effects of Efficiency and Legitimacy Based Strategies

Hoskisson *et al.* (2000) distinguish between two main sets of strategies that firms use in international markets. The first group contains resource-based strategies that focus on firm-specific resources and capabilities. On the other hand, there is another set of strategies, namely institution-based strategies (also referred to as legitimacy based strategies), which focus on legitimacy and institutional ability to conform to a given institutional settings. At lower levels of institutional risk, e.g. in host countries with high level of institutional development, resource-based strategies become more relevant. On the other side, in contexts with a high level of institutional risk, e.g. emerging economies with a lack of institutional infrastructure, institution-based strategies are more applicable (Chan *et al.*, 2008; Hoskisson et al., 2000). Therefore, the importance of firm-specific effects (resources and capabilities) and country effects (host country attributes and institutions) might be different for firms, based on the target institutional environment (Chan *et al*., 2008).

5.2.3 Ownership Structure:

An important strand of research on equity-based entry modes is related to foreign direct investment (FDI). A critical question that firms should answer in their FDI decision is their appropriate ownership structure (OS). Firms should decide whether they should expand alone to a new market (WOS) or do it with one or more partners (e.g. JV). In other words, in the process of expanding into a foreign market, firms must decide on the percentage of ownership in the foreign venture and subsequently choose between full *versus* partial control of their subsidiaries (Keith D. Brouthers & Hennart, 2007; Ruiz-Moreno, Mas-Ruiz, & Nicolau-Gonzálbez, 2007). Similar to what was discussed about determinants of the main question of entry mode, OS decision has many determinant factors from different perspectives such as institutional and transaction cost perspectives (Brouthers, 2002). For example, research shows the firms' perception on how they can gain legitimacy in a particular institutional environment affects the OS decision (Chan & Makino, 2007).

This section of this research focuses on the entry mode through FDI and explores the relationship between challenge institutional context measured by the newly developed RIC construct or the foreign firms' ownership structure.

5.3 Hypotheses Development:

After reviewing the literature and theoretical foundations on the concept of entry mode and ownership structure in the previous section, the current section develops the hypotheses on the relationship between the RIC and FDI ownership. Figure 10 presents the conceptual model of this relationship.

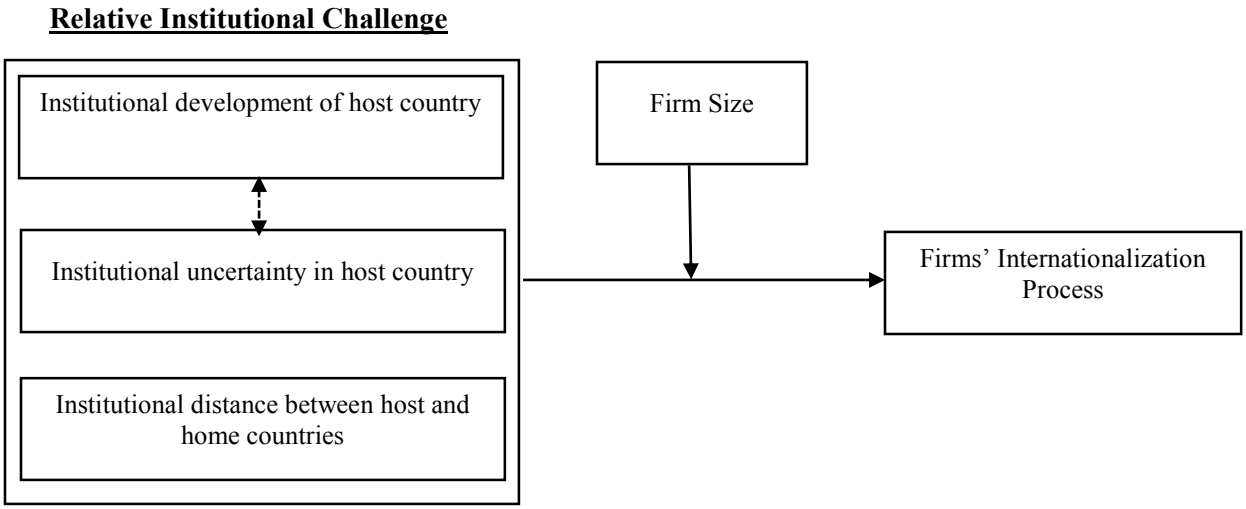


Figure 10. The conceptual model of relationship between Relative Institutional Challenge and ownership structure

5.3.1 Low levels of Relative Institutional Challenge:

Host countries with low level of RIC will present relatively favorable conditions for foreign firms. Such contexts possess the following characteristics : 1) relatively high level of institutional development, meaning good governance, high quality and established infrastructure, 2) low level of institutional uncertainty, which means higher level of stability and lower environmental risk, and 3) high level of institutional similarity to their country of origin (low institutional distance), which means similarity between rules of the game in home and host country. Therefore, entering a host country with low level of RIC will result in lower transaction costs (due to high institutional development and existence of established institutions), low environmental risk (due to low institutional uncertainty) and lower cost of transferability of practices and product/services (due to low institutional distance of home and host countries). Chen *et al.* (2008) suggest that when a host

country possesses high governance quality, foreign firms will be able to manage their operation well enough and will not need local partners' knowledge. Hence, there would be no need to give up the equity stakes and control rights to a local partner as their knowledge will not be worthwhile anymore.

In such situations, entry mode research suggests that firms will use entry modes that involve a higher level of resource commitment as they will be able to manage their cross-border activities well enough without local partners' knowledge and won't be afraid of existing environmental risks.

In this case, foreign firms do not sense an urgency on legitimacy issues so their focus will be on efficiency-based strategies to maximize their return.

5.3.2 High Levels of Relative Institutional Challenge:

In contrast to the previous discussion, firms might enter host countries with high levels of RIC. In such institutional contexts, a foreign firm faces a host country with considerable institutional obstacles. Such a challenging environment shows a relatively low level of development, meaning poor and inefficient governance systems and low-quality established infrastructure. This environment is also conducive to a high level of environmental volatility and low predictability, meaning lower level of stability and higher environmental risk. Finally, it also means a high level of institutional dissimilarity to their country of origin (large institutional distance), which means different sets of rules of games in two contexts. Therefore, such a challenging context is correlated with higher levels of transaction cost due to low institutional development and existence of institutional voids, higher level of environmental risks and costs due

to high institutional uncertainty, and high cost of transferability of practices and product/services due to large institutional distance of home and host countries.

In such environments, firms will try their best to minimize the risks associated with high level of institutional challenge. Hence, they will seek to gain flexibility and to share risk with local partners with a higher level of valuable knowledge about the local context. Local partners may also have already developed capabilities for relationship-based management in their environment that can substitute for the lack of institutional infrastructure (Hoskisson *et al.*, 2000). This strategy will satisfy foreign firms' need for external legitimacy and will compensate their deficiency of institutional knowledge. As a result, legitimacy or institution-based strategies will be main strategies foreign companies will seek.

Hypothesis 1 represents the relationship between the RIC of the host country and foreign firm's ownership structure decision.

Hypothesis 1:

Relative Institutional Challenge is negatively correlated with a foreign firm's ownership stake, *i.e.* that the greater the Relative Institutional Challenge, the lower the ownership stake.

5.3.3 The Moderating Effect of Firm Size:

Previous research shows that entry mode decisions are influenced by two sets of endogenous (firm-specific) and exogenous (country-specific) characteristics (Birkinshaw, Hood, & Jonsson,

1998; Rugman, 1996; Rugman & Verbeke, 1992). The effect of size as a firm-specific factor has been rigorously used in strategy research.

Firms' size can represent different characteristics of companies such as their resources, their scope of operation, flexibility and organizational inertia. SMEs have limited resources and various types of ownership and management, and usually, lower level of international experience compared to larger MNCs. Without the sheer economic power of larger firms, SMEs have fewer financial and human resources and cannot diversify risk in response to challenges arising from the institutional context (Brouthers 2002). On the other hand, SMEs are more flexible than larger MNCs due to their size and a lesser degree of organizational inertia (Hannan *et al.*, 2002). Because of higher flexibility and agility, SMEs hold a higher level of learning efficiency (Michael T. Hannan, Pólos, & Carroll, 2002; Schwens *et al.*, 2011).

Previous research has been done on the moderating effects of firm size on the relationship between institutional determinants (such as informal and regulative distance on entry mode decisions) and showed that SMEs' flexibility might act as a competitive advantage for them in more challenging environments (Schwens et al., 2011). This pattern can be explained using the following arguments: in the presence of low level of RIC, competitive dynamic among firms is highly influenced by the resources they possess. In such contexts, larger firms have access to more resources; therefore, they will show a tendency towards entry modes with higher levels of resource commitment such as WOS. On the other hand, SMEs will need the knowledge and expertise from local actors in their internationalization process as they will suffer from resource deficiency for establishments of such WOS.

However, there might be a different pattern at the increased levels of RIC. Due to smaller firms' lower levels of organizational inertia (Hannan & Freeman, 1984) and their higher learning

efficiency, they might be able to use their flexibility to cope with challenging environments. Thus, the learning advantage and flexibility might help SMEs to fill the competitive gap due to resource superiority of MNEs.

Hypothesis 2 is being developed to represent the moderating effects of size on the relationship between RIC and firms' foreign ownership structure. As figure 11 represents in a schematic way, the gap between ownership structure of large MNCs and SMEs will become smaller with increase in the level of RIC.

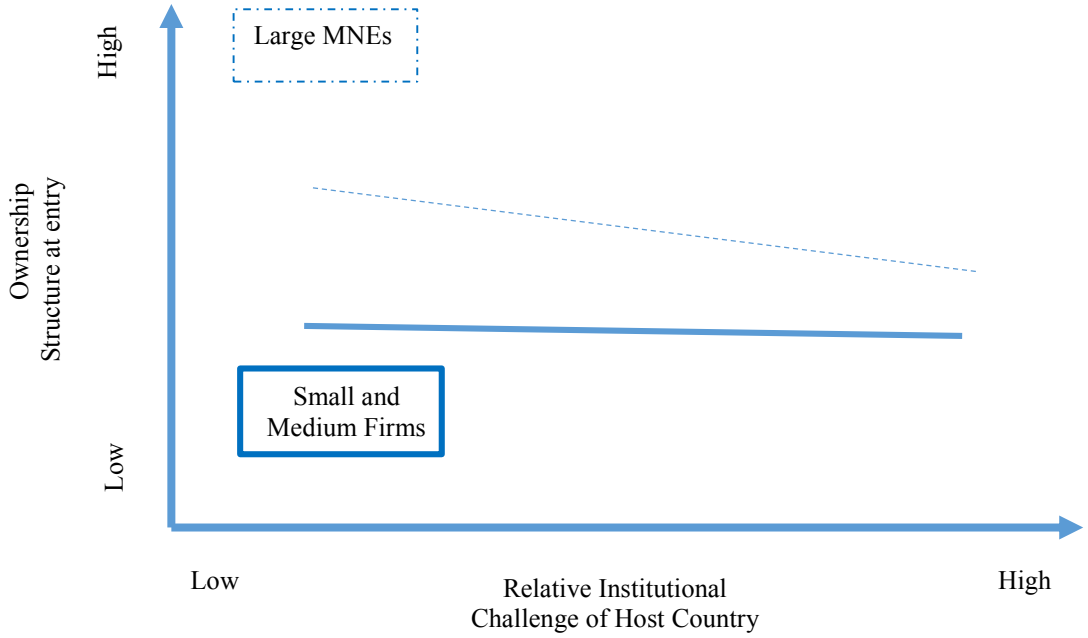


Figure 11. The moderating role of firms' size on their ownership structure decision

Therefore, the second hypothesis in this research is developed as follows.

Hypothesis 2:

Foreign firm size moderates the relationship between the Relative Institutional Challenge and a foreign firm's ownership stake such that the larger the firm, the stronger the relationship between Relative Institutional Challenge and firms' ownership stake.

5.3.4 Medium Levels of Relative Institutional Challenge:

In contrast to contexts with high or low levels of RIC, firms will show varied strategic responses in host countries with medium level of RIC. As discussed, low level of RIC is associated with low risk and complexity and firms will need lower efforts to gain legitimacy while transferring their capabilities to the new market. On the other hand, host countries with high RIC pose high risk and complexity for foreign firms, and they will need a very high level of effort to gain legitimacy in the new context. The case can be more complex in medium levels of RIC. In this case, firms face a medium degree of risk and complexity, but the source of the risk and complexity might be different. It could be due to the high institutional distance between home and host countries, or institutions that are not well established, or high level of uncertainty, or a mix of two of the mentioned factors. In this case, different firms might choose to use different strategies. Foreign firms might choose their strategies from a set of different options. Some strategic options can be a partnership with local actors (local companies or government actors) to gain a higher level of legitimacy, modifying their business model in the host country to fit the new environment, or using an entry mode with a high level of resource commitment in the local market. The last option will be viable if foreign firms can acquire sufficient assurance from local or regional authorities.

As a result, firms' strategies in medium levels of RIC might be a mix of institutional-based (legitimacy-based) strategies and resource-based strategies. It means firms have more agency in their decision of foreign market entry based on the firm-specific advantages. In this research, we expect that in low and high level of RIC, firms' ownership structure show high levels of homogeneity. In other words, different firms are supposed to have a lower variance in their ownership structure in areas with high or low levels of RIC. For a medium level of RIC, we expect firms to show a higher level of heterogeneity in their ownership structure. This research labels the medium level of RIC as *the area of heterogeneity*.

Based on the discussions at this point, the third hypothesis on the relationship between RIC and Variance of ownership structure in being developed.

Figure 12.1 and 12.2 demonstrate a schematic representation of the discussion related to hypothesis 3.

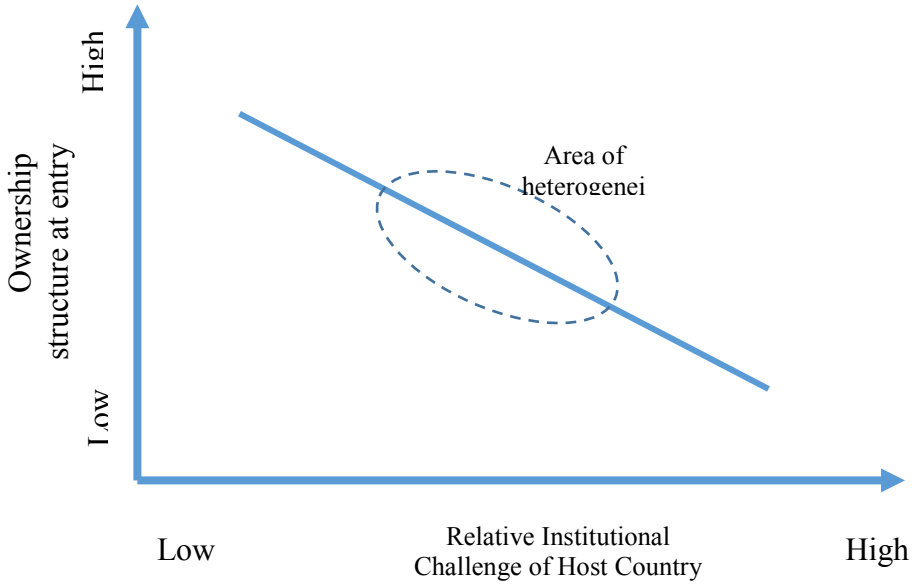


Figure 12.1 Schematic view on the relationship between Relative Institutional Challenge and ownership structure at entry

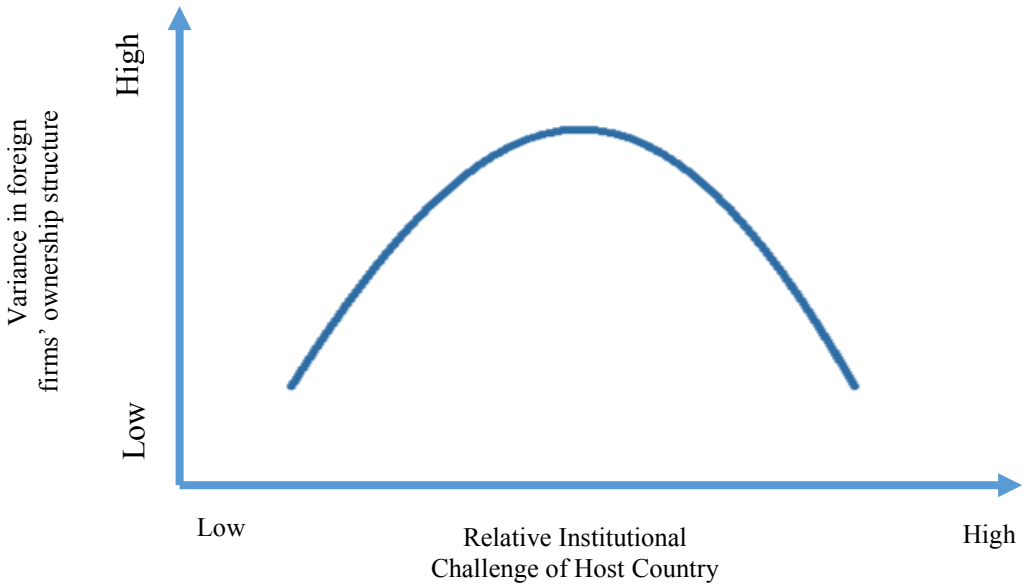


Figure 13.2 Schematic view on the expected relationship between Relative Institutional Challenge and variance in firms' ownership structure

Hypothesis 3:

The relationship between the Relative Institutional Challenge and the variation of foreign firms' ownership stake is curvilinear (an inverted U shape), such that at the medium levels of Relative Institutional Challenge there is greater variation in ownership structure than at high and low levels of Relative Institutional Challenge.

In the next section of this thesis, the proposed hypotheses are empirically tested.

6 Methodology and Data

6.1 Data

The SDC Platinum Dataset by Thomson Reuters accessed through Concordia Library database in October 2015 (Available at the John Molson of Business finance lab) was used as the main source of data for the dependent variable (ownership stake) in this research. SDC Platinum has been previously used in numerous studies in management and finance fields. It delivers a widely accepted dataset with a comprehensive coverage of topics related to international joint ventures and mergers and acquisitions (M&As) (Cui, Calantone, & Griffith, 2011; Puranam, Singh, & Zollo, 2006; Rossi & Volpin, 2004). In the current research, we extracted the list of international JVs, equity-based international alliances, and international M&As with the list of home and target country for 192 host countries for the period of 2001-2014. Due to the limitations of size while extracting data for all variables and all target countries and the enormous size of the dataset, the extraction was performed in multiple stages with the same variables for different groups of countries at various stages and compiled at the final stage. For each transaction, 24 variables were extracted. A summary of variables extracted in this research and a schematic view of a sample of data extracted are presented in the appendix section.

6.1.1 Data and sample selection process:

Compiling data and selecting the sample before performing the final analysis took place in multiple steps as follows:

1) Data on international M&As and JVs extracted from SDC Platinum for 2001-2014 for 192 host countries with the respected 24 variables for each transaction as explained earlier. Almost 600,000 transactions were extracted in a master data source at this stage.
2) Data for three years for the period of 2011-2013 was extracted from the master data source. At the end of this step, almost 135,000 transactions were extracted. The detail of data extracted for each year comes as follows:

    The year 2011: 47991 transactions

    The year 2012: 44543 transactions

    The year 2013: 42225 transactions
3) Common countries in "Relative Institutional Challenge Index" lists and "SDC data set" were checked and selected. Also, we made sure that both lists are using the same names with the same spelling for each country.
4) "Relative Institutional Challenge Index" and extracted data from "SDC Platinum" were merged so that for each transaction based on the target and acquirer nation and the year of the announcement, the corresponding value for the RIC was added in a separate column.
5) Polishing the data set was the next step performed. At this stage, we made sure that extracted dataset solely includes transactions from different home and host countries and transactions with same home and host country were deleted. The dataset at this point included 22528 transactions with the following distribution for each year.

    The year 2011: 9367 transactions

    The year 2012: 7368 transactions

    The year 2013: 5794 transactions

6) At this stage, the database included some invalid inputs (represented as “N.A” or “seeking value” in the dataset). Therefore, filtering the dataset based on valid values of percentage of shares acquired was the next step. Our final set at this stage encompasses 15364 transactions with the following distribution:

The year 2011: 6340 transactions

The year 2012: 5074 transactions

The year 2013: 3950 transactions

It is worth mentioning that not every transaction has the firm's size specified in the data set, and the subset of the dataset with specified number size has almost 5000 transactions.

6.2 Variables

6.2.1 Dependent Variable:

Dependent variables in this research are the *level of ownership structure* and *variance in the ownership structure* of the firms in their internationalization process. The ownership structure is measured by the percentage of shares acquired in a transaction by foreign firms in their international M&As or JVs.

The variance of ownership structure (used as the dependent variable in hypothesis 3) is measured by the variance of the percentage of shares acquired in the transaction by foreign firms in their international M&As or JVs in any unit of RIC Index. As the RIC in our dataset varies from -59 to 60 (total of 120 units), the variance of ownership percentages was calculated at a different

step for each unit. The result of the calculation of variance in each unit is presented in the appendix section.

6.2.2 Independent Variable:

The RIC Index was used to measure the main independent variable, as previously developed in the first part of the research for the years 2011 - 2013. The index was developed and compiled for the three years using the same procedure explained earlier. Using a matching process through Microsoft Excel for each transaction in the extracted dataset from SDC Platinum for the years 2011 to 2013, the integration of RIC index was performed. For this process, each transaction was assigned to the respected RIC index based on the acquirer (home) nation, target (host) nation and the announcement date of the transaction.

6.2.3 Moderating Variables:

Firm size as the moderating variable in hypothesis 2 was measured by using the number of employees in the acquiring firm. To investigate the moderating effect, two different approaches to measuring this variable were used:

- Using the firm size as a continuous variable as it is stated in the dataset
- Dichotomizing the variable and categorizing it into two main groups: small and medium firms (less than 500 employees) and large companies (more than 500 employees) and comparing the moderating effect for the following groups.

6.2.3.1 Principle for employees' dichotomizing process:

Different measures have been used as the cut-off point for large, small, and medium firms. Some researchers have used 250 employees, some 500 employees (Puranam *et al.*, 2006) and some have even used the threshold of 1000 employees (Pavitt, Robson, & Townsend, 1987, 1989). In this research, we used 500 employees as the criterion for the employee size category based on the definition of the U.S. Small Business Administration definition. Analyses were performed for both methods of measurement and results were compared and will be discussed further in the discussion section.

6.2.4 Control Variable:

Previous research shows that different categories of variables are influencing ownership structure decision of the firms: Country-specific factors, industry-specific factors and firm-level specific factors (Chan & Makino, 2007; Ruiz-Moreno *et al.,* 2007). Like many types of research in this domain, we controlled for industry-level variables (López-Duarte & Vidal-Suárez, 2010). Different industries have different characteristics, which might have a significant effect on firms' internationalization process. For this research, all transactions in the master data file were categorized based on their SIC code into ten major industry groups as shown in table 15.

Table 15. List of major industry groups based on SIC code

Range of SIC Codes	Division
0100-0999	Agriculture, Forestry, and Fishing
1000-1499	Mining
1500-1799	Construction
1800-1999	Not used
2000-3999	Manufacturing
4000-4999	Transportation, Communications, Electric, Gas and Sanitary service
5000-5199	Wholesale Trade
5200-5999	Retail Trade

6000-6799	Finance, Insurance and Real Estate
7000-8999	Services
9100-9729	Public Administration
9900-9999	Non-classifiable

At the end of this section, table 16 shows a summary of variables and measurement used in the analysis section for this research.

Table 16. List of variables and measurements

Category	Variable	Measurements
Independent variable	Relative Institutional Challenge (for years 2011-2013)	Relative Institutional Challenge Index as measured in first part of the thesis
Dependent variable	Ownership structure	Ownership percentage of the foreign firms
	Variance in firms' ownership structure	Variance of the foreign firms' ownership percentage in each unit of Relative Institutional Challenge
Moderating effect	Firm size	Number of employees of the foreign firm
Control variables	Industry	Foreign firms major industry group based on their SIC code

7 Analysis and Conclusion:

7.1 Analysis

Our data are compiled in a panel dataset containing each transaction with the announced year, the percentage of shares acquired by the acquiring firm at the transaction, the size of the acquiring firm (for the cases where it was available) and the correspondent RIC index based on home and host country and the year of the transaction. In another column, the dichotomized value for firm size was mentioned as well.

7.1.1 General Statistical Approach[6]:

In the first part of the statistical analysis, the linear regression analysis was used. A simple linear regression analysis was performed with SPSS. Being fully aware that in large datasets even the smallest deviation from perfect normality might lead to significant results, we performed bootstrapping analysis as the second step to test for the effects of non-normality. In addition to bootstrapping, random sample selection was tested as well. Even by reducing the data size in several random samples to a size of less than 300, the results were the same.

In the model used for analysis of this part, the independent variable was the RIC, the dependent variable as ownership percentage and the moderator defined as firm size.

[6] I would like to express my gratitude to my colleagues Raghid Al Haj, Dr. Kaspar Schattke and Dr. John Vongas on their very helpful and generous comments and help on the statistical analysis section.

In addition to using the mentioned processes, a method called *conditional process analysis* (Hayes, 2013) could be used for the developed model in order to alternate the effects of non-normality in our big dataset (N>1000). This feature can be freely added to the SPSS software and makes the simultaneous calculation of all links possible, solving the non-normality of interaction terms with the use of bootstrapping through repeated sampling with partly replacement. The conditional process analysis was performed, and it showed the same result to the first approach as presented in the appendix.

7.2 Findings

7.2.1 Descriptive Statistics:

Table 17 presents descriptive statistics and correlation for the independent variable, dependent variable and moderator as used in hypothesis 1 and 2.

Table 17. Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IV Relative Institutional Challenge	15357	-57.86	60.84	-22.84	24.573
MD Employee number	4999	1	616326	30083.02	63381.62
DV Ownership percentage	15357	.22	100	77.76	33.42
Valid N (listwise)	4999				

Table 18 shows the intercorrelation between the dependent variable, independent variable and moderating variable for the same hypothesis.

Table 18. Correlation Table

Correlations

		DV	IV	MD
DV	Pearson Correlation	1	-.278**	-.044**
	Sig. (2-tailed)		.000	.002
	N	15360	15360	4999
IV	Pearson Correlation	-.278**	1	.083**
	Sig. (2-tailed)	.000		.000
	N	15360	15360	4999
MD	Pearson Correlation	-.044**	.083**	1
	Sig. (2-tailed)	.002	.000	
	N	4999	4999	4999

**. Correlation is significant at the 0.01 level (2-tailed).

7.2.2 Results from linear regression analysis, Hypothesis 1:

Our analysis of the relationship between the level of RIC and the ownership percentage are shown in Table 19. It shows that the relative institutional index has a negative and significant impact on ownership structure (β= -*.238, p< .005*). Hence, hypothesis number 1 was supported (N = 4999).

Table 19. Coefficient table- direct effect of independent variable on dependent variable

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	79.949	1.125		71.048	.000
IV- Relative Institutional Challenge	-7.781	.451	**-.238**	-17.256	**.000**

a. Dependent Variable: Ownership Percentage

The results after the bootstrapping were also supported and showed the same level of significance. For more information on bootstrapping results, refer to full data analysis result for bootstrapping process presented in the appendix.

As a result, we can see that hypothesis 1 is supported by the analysis as RIC is negatively correlated with a foreign firm's ownership stake, such that the greater the Relative Institutional Challenge, the lower the ownership stake.

7.2.3 Moderating Effect:

Testing for the interaction effect was then carried out to determine whether acquiring firms' size acts as a moderator of the relationship between RIC and firms' ownership structure. As it was shown in Table 20, moderating effect tests first carried out for firm size as a continuous numeric value. The result of the moderating effect, in this case, shows non-significant results ($p=.753$). Hence, we see that acquiring firm's size, as a continuous variable, does not have a significant moderating effect on the relationship between RIC and firms' ownership structure.

Table 20. Model with moderating effect - Size as a continuous variable

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	80.720	.430		187.77	.000
IV: Relative Institutional Challenge	-7.692	.451	**-.235**	-17.04	**.000**
MD: Employee number	-.690	.427	-.022	-1.614	.107
Interaction2 IVxMD	-.143	.455	-.004	-.315	**.753**

a. Dependent Variable: Ownership Percentage

However, based on the existing theoretical arguments on the differences in firms' resources and decisions for SMEs vs. large companies, the moderating effect of the dichotomized variable was tested as well. The decision point was made as 500 employees, as explained earlier. As it is shown in Table 21, in this case, a significant negative moderating effect was observed (β = -.109, p<.005). However, the moderating effect shows the opposite direction of the predicted relationship in hypothesis 3. Figure 14 shows a schematic view of the observed moderating effect for the dichotomized moderator.

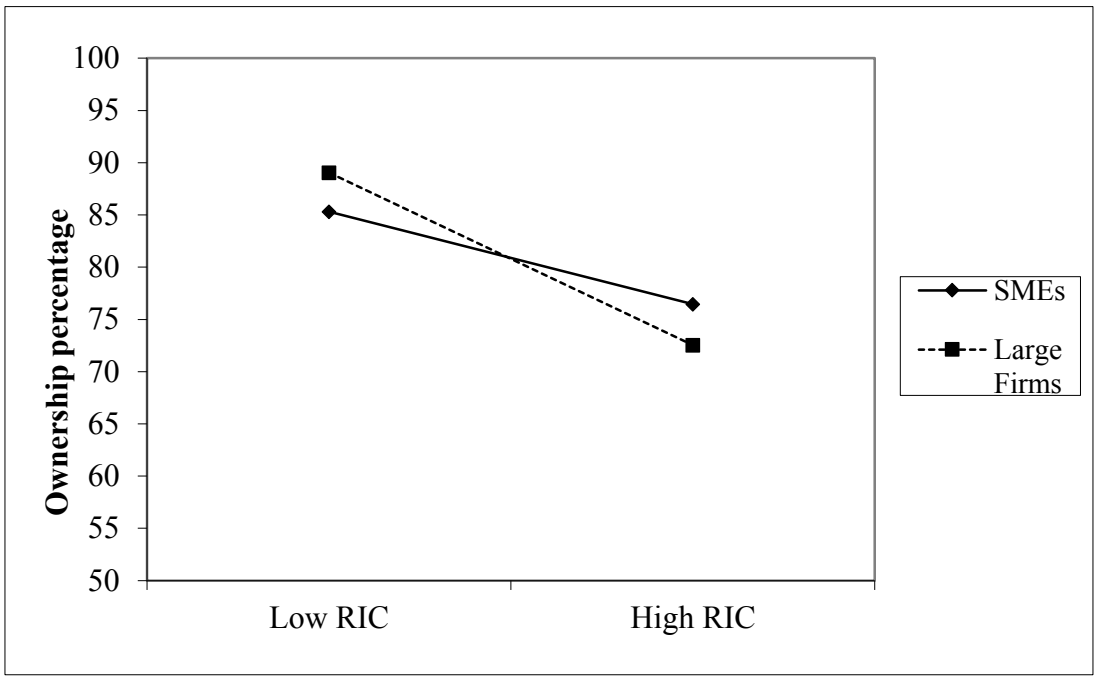
Table 21. Model with moderating effect - Size as a dichotomous variable

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	80.883	1.172		68.995	.000
IV: Relative Institutional Challenge	-4.431	1.271	-.136	-3.486	**.000**
MD_dicho Employees <> 500	-.088	1.260	-.001	-.070	.944
Interaction1 IVxMD_dicho	-3.830	1.360	-.109	-2.817	**.005**

a. Dependent Variable: Ownership Percentage

Figure 14. Firm size moderating effect- Dichotomized approach



As we already mentioned in the previous section, all analyses were performed using bootstrapping as well, which supported the results in this section.

Hypothesis 2 claims that there is a moderating effect of firm size on the relationship between RIC level and ownership structure, such that the larger the firm, the stronger the relationship between RIC and firms' ownership stake. The results support the developed hypothesis. It shows that SMEs characteristics give them the capability of coping with higher levels of challenge, reducing the gap with the larger firms.

In the discussion section of this thesis, the possible theoretical reasoning behind this finding will be elaborated more.

7.2.4 Control Variable:

Industry major groups were the main potential confound controlled in this research. As mentioned earlier, different industries have different characteristics, which might have very significant effects on firms' internationalization process. Regarding the impact of the control variables on the level of ownership structure, we tested the control effects of industry. Here, industry effect was measured by assigning each transaction to the correspondent major industry group based on SIC codes. The effects of control variable are shown in Table 22. The provided results show that industry has a significant effect on firms' ownership percentage. However, adding the industry group as the control variable does not affect the level of significance and validity of our original proposed model.

Table 22. Industry as control variable

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	287501.340	4	71875.335	79.506	**.000[b]**
	Residual	4511986.819	4991	904.025		
	Total	4799488.159	4995			

a. Dependent Variable: Ownership Percentage

b. Predictors: (Constant), Industry code, IVxMD_dicho, MD_dicho, IV

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	77.708	1.512		51.395	**.000**
	IV: Relative Institutional Challenge	-4.313	1.261	-.132	-3.419	**.001**
	Interaction1 IVxMD_dicho	-3.899	1.350	-.111	-2.888	**.004**
	Industry code	.589	.179	.045	3.292	**.001**
	MD_Dich	-.223	1.254	-.003	-.178	.859

a. Dependent Variable: Ownership Percentage

7.2.5 Relative Institutional Challenge and Variance of Ownership:

Our analysis of the relationship between the level of RIC and the variance of ownership structure is shown in following tables. Hypothesis 3 presents a negative curvilinear relationship between RIC and the variance of ownership structure. In the model related to this hypothesis, the independent variable is RIC, measured in a categorigal matter, , and the dependent variable is represented as the variance of ownership percentage in each unit of the RIC. At this step, both linear and quadratic regression analyses are performed. The quadratic regression analysis was used to test the proposed curvilinear relationship. The following table shows that the linear regression analysis does not provide significant results (*p=.565*).

Table 23. Analysis of Linear effect of RIC on ownership structure variance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1063.570	35.303		30.127	.000
	RIC category	.661	1.146	.058	.577	**.565**

a. Dependent Variable: Ownership Percentage variance

However, results from quadratic regression analysis show that the quadratic term of the RIC has a negative and significant impact on the variance of ownership structures among the firms. The result offers strong support for Hypothesis 3, suggesting a negative curvilinear relationship between RIC and variance in ownership structure.

The results of the quadratic regression analysis are presented in tables 24. As it can observed, the overall model was significant, explaining 46% of the variance ($R^2 = .46, F(2,98) = 41.11, p < .000, \beta = -.733$). The analysis in this section strongly supports hypothesis number 3.

Table 24.Quadratic analysis results (Coefficients and Model summary)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1288.387	36.141		35.649	.000
	RIC category	-2.644	.926	-.231	-2.854	.005
	(RIC Category)*2	-.264	.029	**-.733**	-9.034	.000

a. Dependent Variable: Ownership Percentage variance

Model Summary and Parameter Estimates

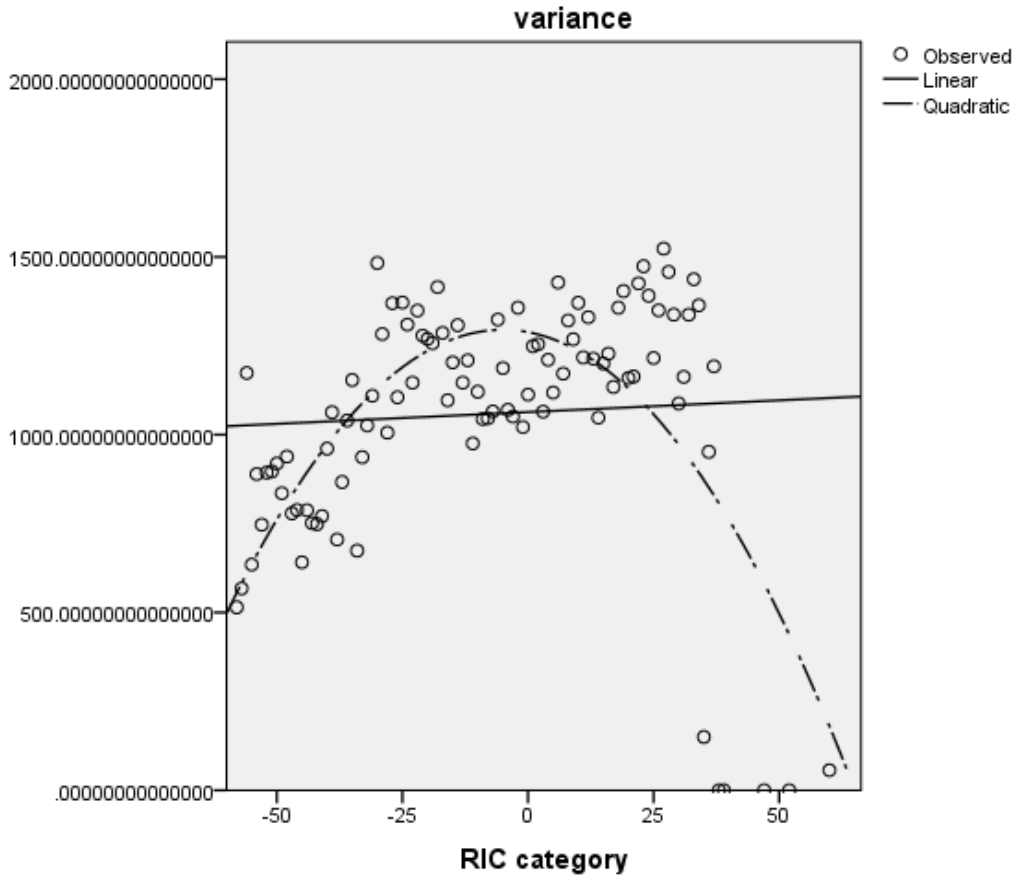
Dependent Variable: Ownership Percentage variance

Equation	Model Summary					Parameter Estimates		
	R Square	F	df1	df2	Sig.	Constant	b1	b2
Linear	.003	.333	1	99	.565	1063.570	.661	
Quadratic	**.456**	41.111	2	98	**.000**	1288.387	-2.644	-.264

The independent variable is RIC category.

Figure 15 shows the schematic view of this curvilinear relationship. As shown, the variance in ownership structures is low at the low levels and very high levels of RIC, while there is a higher level of variance at the medium level. We previously called this range as the *area of heterogeneity,* where firms show a higher level of the agency regarding their ownership structure.

Figure 15. Schematic view of the negative curvilinear



The findings of this section provide interesting results on this research. At first sight to the provided dataset, one might think there is no significant relationship between the RIC category and ownership variance and conclude that RIC cannot predict the variance of firms' ownership

strategies. However, by looking at the quadratic regression, we observe a clear relationship between RIC level and variance in firms' ownership structure, as predicted in previous sections.

8 Discussions, Implications, and Limitations

8.1 Overview of Study:

The overarching purpose of this research was to show a more comprehensive view of country-specific factors affecting firms' internationalization process. This task was performed by developing a new construct, the RIC, measuring its dimensions (institutional distance, institutional development, and institutional uncertainty), and creating the RIC Index through an aggregation of these measures. We then conceptualized the effect of the RIC on a significant element of internationalization process (*ownership structure)*. Our findings mostly supported the proposed hypotheses.

In this thesis, I have examined the effects of home country's institutional challenge on firms' internationalization behaviour. The main contribution of this thesis is two folded. The first contribution lies in introducing, developing and measuring a new construct. At the level of the country, I have introduced the construct of RIC. This construct was developed to grasp a comprehensive understanding of the institutional environments. RIC is presented in contrast to using just one element of institutional environments in IB and adds to the existing dimensions in the literature by using a holistic view. In the first part, this research shows that looking solely at one of the dimensions is not enough, and a comprehensive view should be encompassed. However, the contribution is not just on introduction and development of the construct. An index for measuring RIC was developed as well.

The second contribution of the thesis lies in the empirical testing of the effects of RIC on firms' internationalization behaviour. The set of hypotheses, representing the predicted

relationship between RIC and firms' foreign ownership structure, was developed and tested. Using a rich dataset on international M&As and JVs, the second part of the thesis tested the applicability of the RIC on predicting firms' international decision. To summarize, it can be said that this thesis introduces, develops and measures a new construct with significant contribution in international business research. Moreover, this newly developed construct shows a significant correlation to an important aspect in internationalization decision of the firms, namely ownership structure.

8.2 Discussions on Major Findings:

Consistent with the hypotheses postulated, the findings suggest that RIC, as conceptualized and measured in this research, has an impact on firm's ownership structure as a representative of entry mode decision.

Hypothesis 1: Direct link supported

> Relative Institutional Challenge is negatively correlated with a foreign firm's ownership stake, such that the greater the Relative Institutional Challenge, the lower the ownership stake.

As previously discussed, we predicted that firms facing a higher level of Relative Institutional Challenge are willing to internationalize by modes requiring a lower level of resource commitment. Consistent with the postulated hypotheses, the findings suggest that the newly developed construct on the RIC has an impact on ownership structure.

As discussed earlier in Section 5.3, host countries with a low level of RIC will present relatively favourable conditions for foreign firms. In such conditions, firms will use entry modes that involve a higher level of resource commitment. In such environments, firms will find it easier

to achieve external legitimacy, and will face lower levels of risks and associated costs. Hence, these firms will be able to manage their cross-border activities well enough without local partners' knowledge, and will not be afraid of existing environmental risks. On the other hand, by increasing the level of RIC, firms will attempt to minimize the risks associated with higher levels of institutional challenge. Hence, they will seek to gain flexibility and to share risk with local partners with the greater level of valuable knowledge about the local context. Local partners may have already developed capabilities for relationship-based management in their environment that can be substituted for the lack of institutional infrastructure (Hoskisson *et al.*, 2000).

The analysis in this part showed that the effect factor of the relationship between RIC and ownership structure is at -0.23. This study solely focuses on country-specific factors. Hence, the obtained effect factor is not surprising. This study shows that the ownership structures of foreign firms are influenced by the institutional challenge they perceive in a host country, defined as the RIC, developed and measured by the RIC construct.

Empirical support for Hypothesis 1 at this point offers a higher level of validity of the newly developed construct and its related index. The results suggest that RIC has not only proper theoretical and conceptual grounding but also the measured index can significantly explain the influence of country effect factors on internationalization process.

Hypothesis 2: Moderating effect: supported in categorical examination

> Foreign firm size moderates the relationship between the Relative Institutional Challenge and a foreign firm's ownership stake such that the larger the firm, the stronger the relationship between Relative Institutional Challenge and firms' ownership stake.

As we just observed, testing the hypothesis based on the dichotomy of SMEs vs. large firms showed significant results and supported the moderating effect. The result supported our assumption on the importance of flexibility and learning advantages of SMEs compared to the larger firms. While at low levels of RIC, large firms tend to hold the higher percentage of ownership in their foreign entry, their decisions of ownership is being affected more strongly than SMEs as their level of RIC is increased.

Previous research has characterized the differences in behavior of the SMEs from the larger firms in many aspects. The relevant aspects influencing the moderating effect can be sought in different factors such as lack of resources and capabilities (Etemad, 2004; Schwens et al., 2011), higher flexibility and agility due to lower organizational / structural inertia (M. T. Hannan & Freeman, 1984; Schwens et al., 2011), lower liability of foreignness (Hymer, 1960; J. W. Lu & Beamish, 2006), institutional duality effect (Kostova & Zaheer, 1999; Lu & Xu, 2006), different mechanisms of liability of origin / identity attribution to their respective home country (Arpan & Sun, 2006; Moeller, Harvey, Griffith, & Richey, 2012; Ramachandran & Pant, 2010) and lower pressure for global convergence (Kostova & Roth, 2002; Ramamurti, 2004; Rugman & Verbeke,

2004). Also, SMEs' ability to build and integrate into informal networks with local actors might explain this phenomenon.

A prediction made in Hypothesis 3 was that higher variation in firms' ownership structures are expected to be observed in medium levels of RIC, referred to as the area of heterogeneity. The findings of this research strongly support this hypothesis.

The analysis in this section shows some interesting findings. By looking solely at the linear relationship between different RIC, one might neglect any possible relationship between RIC level and the variation of firms' ownership structure. However, investigating the curvilinear relationship using quadratic regression analysis revealed very promising results, as previously explained.

In a similar study, Chan. *et al.* (2008) showed a negative curvilinear relationship between institutional development and foreign affiliate performance. The findings of this study add value to their findings by expanding beyond institutional development and using ownership structure as the dependent variable. This study clearly shows that the ownership structure of firms varies at different levels of RIC, and it follows a clear pattern. The analysis supports the argument that at an absolute low or high level of RIC, firms show a greater level of convergence on their ownership decisions and follow a more similar path. In both cases, firms are behaving more consistently regarding their ownership decisions, and institution-based strategies are the dominant strategies firms follow. In other words, we suggest that firms are most likely to make their decision of ownership in a foreign country based on external and institution-based characteristics at the low and high levels of RIC. The underlying reasons for choosing institution-based strategies might be different for low and high levels of RIC. At low levels, firms deal with more-developed countries with lower levels of uncertainty and many institutional similarities. Such institutional contexts will constrain the range of legitimate strategic actions with more certain outcomes (Chan et al., 2008).

Therefore, firms' strategies will be more similar. At the very high levels, firms face non-similar institutional settings with a high degree of volatility and low level of development. In such contexts, firms' behaviour is not solely related to their resources but is mostly related to the way they adapt to such challenging institutional arrangements putting more emphasis on legitimacy-based strategies.

On the other hand, at the middle range of RIC, firms show more divergence in their ownership structures. Therefore, the variance of firms' ownership structure is higher. This study refers to this area as the *area of heterogeneity* in which firm-specific factors dominate institution-based factors. In the area of heterogeneity, firms are expected to make different decisions based on their internal characteristics and capabilities. Further, firms are more likely to pursue resource-based strategies in the area of heterogeneity.

8.3 Relative Institutional Challenge: General Discussions

The first set of contributions of this thesis offers a comprehensive view of the institutional environment and develops a new institutional construct called ***Relative Institutional Challenge (RIC).*** RIC considers the effect of institutional difference (institutional distance), the state of institutionalization (institutional development), and the rate of institutionalization (institutional uncertainty), simultaneously. This study shows that having a holistic approach to institutional environments of host countries in international business research is of benefit. In order to address this holistic view, the RIC construct was presented and measured. It adds value by encompassing the characteristics of the host country, including institutional uncertainty and institutional development, along with the factor of institutional similarity. I argued in this thesis that looking at either of these approaches lacks the comprehensiveness for representing the institutional challenge

that firms face in their internationalization process. This research claims that is not solely important how much two countries differ but also how they are different in addition to absolute characteristics of the host country. The institutional distance construct solely addresses that question of "how much two countries differ". However, two other dimensions (institutional uncertainty and institutional development) are needed to not only show how the countries are different, but also how much challenge the host country poses for foreign firms.

The RIC construct enriches our understanding of the effects of institutional profiles in the internationalization process by including absolute characteristics of the host countries and factor of differences between host and home countries, simultaneously. This approach by considering effects at home and host countries at the same time, provides a more precise understanding of the real effects of institutional settings on firms' international decisions. Also, aligned with the latest strand of research on institutional distance, this thesis develops a construct that takes into account the notion of direction beyond institutional distance. It addresses a major shortcoming on the neglected effects of asymmetry and direction in mainstream institutional distance research. Furthermore, the new construct encompasses both factors of institutional change and institutional state at the same time. Thus, it is a novel and new perspective to the issue. This construct distinguishes between two institutional constructs of institutional development and institutional uncertainty, which lack clarity in the management literature, by exploring their differences, effects, and relationship.

8.4 Academic Implications and Avenues for Future Research:

The current study has several implications for the development of the institution-based view within the field international business. Primarily, this study extends the understanding of the

influence of country-specific factors in the internationalization process, by developing the RIC construct. The notion of RIC has numerous implications at conceptual and empirical levels. First, the theoretical development of the construct incorporates both the process and degree of institutionalization, along with direction - elements that have been missing in earlier research (Phillips *et al.*, 2009). Second, the RIC not only captures the level of similarity or dissimilarity of country institutional environments, but it also encompasses the level and pace of institutionalization. Third, RIC adds to commonly used constructs, such as institutional distance, by extending their application and validity. Finally, this research introduces the idea of the area of heterogeneity, which can help researchers better understand how MNC strategic decisions play out on a continuum, rather than concretely in either-or situations.

In addition to conceptual and theoretical implications, I argue that the development of the RIC Index significantly contributes to this research and can be used by scholars in the fields of international business, international development, political science, and strategic management. The construct provides a reliable measure of country-specific effects from a home country perspective. Replicability of the development process and availability of the data for the RIC Index will make it possible to update annually.

The second part of this thesis tests the effects of the RIC on firms' ownership structure. The findings show that RIC has a significant influence on firms' international process. It has the potential to fill a critical gap in the institution-based view to international business and provides an insightful perspective on the main developments in the field.

This study also provides a very rich avenue for future studies. Researchers can use the RIC to explain IB-related phenomena at the country, industry and even firm level. Additionally, using multi-level models that take into account joint effects of the firm, the industry, and the country-

specific factors can advance our understanding of the institution-based view to international business.

Furthermore, researchers could seek to investigate the relationship between RIC as a whole institution-based construct on other models, including models employing different dependent variables. As a newly developed construct, there is a need for further testing in various relationships to increase the validity of both the construct and the associated index.

Other opportunities for future research also can be found by developing the RIC concept. Researchers might use the RIC construct for comparative analyses of firms' international behaviour at different levels of RIC to investigate the strategic implications of changes in institutional settings on firms' actions. Other researchers can also expand on this study by investigating the same relationship using a broader set of industry and firm-level variables.

Another potential stream of future research can be performing longitudinal studies to include concepts such as path dependency on firms' behaviour related to changes in the RIC level.

This research also provides the opportunity for qualitative research and case studies in international business. Research on managerial experiences and motives in considering managers' perception toward RIC in host countries such as testing managers' backgrounds and the nature of challenge perception in a particular national setting may lead to fruitful results.

Extending on the existing study, researchers in IB, SME management, and international entrepreneurship can investigate the effects of size on the firms' strategic responses in international business, extending on what this research already provided.

This research not only showed that firms' international behaviour varies at different levels of RIC, but it also showed that variance of companies' international decision as a collective decision

that changes at different levels. Introducing the concept of *area of heterogeneity* provides another possibility for further research.

On another level, the RIC can contribute to other areas beyond international business research. It has the potential to be utilized in discussions in economics and political sciences on issues such as FDI and regional conflicts.

8.5 Implications for Business Practice and Policy Making

In addition to academic implications, the findings of this study have several practical implications for groups outside of academia. The construct and related index can help practitioners and managers gain a better understanding of their internationalization destination based on the comprehensive set of variables. Understanding that the challenge at the country-level is not only one dimension but rather a combination of institutional dimensions (distance, uncertainty, and development), will provide managers with a holistic decision-making approach in their internationalization process. It can affect MNCs' strategic decisions in the stages before internationalization, during internationalization, and even after establishing a foreign affiliate.

Institutions such as banks, credit rating agencies, insurance agencies, and other support service providers may also benefit from the findings of this research. For example, the RIC Index can help financial institutions have a more precise and comprehensive overview of the level of risk in a given country associated with the RIC.

Lastly, this research has key implications for policy makers in both home and host countries. Host countries can monitor their level of perceived RIC in the eyes of their potential or actual business partners and act on it by scanning, recognizing and alternating the main sources of

increased challenge in their macro environment, or by setting policies on finding more appropriate business partners. The host countries will be able to alter the level of RIC based on policy objectives (including both inward and outward FDI objectives).

At the home national level, governmental bodies can benefit from this research as well. By scanning target different countries using the RIC index, they can better position trading strategies or incentives towards more favourable contexts. These policies can be transferred to internationalizing companies. For example, in Canada, governmental bodies such as Export Development Canada (EDC) can significantly benefit from the findings of similar research.

8.6 Research Limitations:

We acknowledge that the analysis of the relationship between RIC and ownership structure was conceptual in nature, and therefore, there is room for further significance to be shown in empirical settings. However, the theoretical development of our new construct is grounded within the institutional theory domain, using constructs that have been shown to significantly influence outcomes from the internationalization process. We, therefore, believe that the formative nature of the new construct will lead to significant results in this domain as it is tested in a more vigorous empirical manner.

The first limitation is our focus on country-level analysis. Performing a multi-level analysis and taking into account industry and firm level factors, in addition to country-level factors, could enrich this research enormously.

Another limitation of this research is the control variables used. Due to the limitations of the dataset and limited scope of this Ph.D. thesis, the major industry groups were selected as the control variable. Firm-level factors such as international experience, age, ownership, management

structure, firm's resources and managerial ties with the host country, in addition to other industry level factors such as the effect on industry mobility, the level of globalization in the industry, and technology effect, can add to this research as well.

While introducing RIC as a novel construct and providing a framework for its measuring through the RIC index present a significant contribution, such extensive data at the macro level are difficult to manage on a small and individual project. The existing framework for the RIC index can be developed further using the resources and expertise of larger bodies such as the World Economic Forum or World Bank.

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10 Appendices

10.1 Summary of results of developed institutional development dimension (As calculated for years 2011-2013)

Institutional development index – the year 2011

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Albania	0.062796	0.90	**Costa Rica**	-0.01921	-0.28
Algeria	0.772668	11.12	**Côte d'Ivoire**	1.037527	14.93
Angola	1.093156	15.73	**Croatia**	0.161065	2.32
Argentina	0.631093	9.08	**Cyprus**	-0.69051	-9.93
Armenia	0.305361	4.39	**Czech Republic**	0.031085	0.45
Australia	-1.0415	-14.98	**Denmark**	-1.44811	-20.83
Austria	-0.98379	-14.15	**Dominican Republic**	0.519029	7.47
Azerbaijan	0.060277	0.87	**Ecuador**	0.602976	8.67
Bahrain	-0.78234	-11.26	**Egypt**	0.328826	4.73
Bangladesh	0.578654	8.32	**El Salvador**	0.50871	7.32
Barbados	-0.58683	-8.44	**Estonia**	-0.69532	-10.00
Belgium	-0.91351	-13.14	**Ethiopia**	0.360063	5.18
Belize	0.637681	9.17	**Finland**	-1.47424	-21.21
Benin	0.387276	5.57	**France**	-0.89677	-12.90
Bolivia	0.699599	10.06	**Gambia, The**	-0.1185	-1.70
Bosnia and Herzegovina	0.588621	8.47	**Georgia**	0.055606	0.80
Botswana	-0.37677	-5.42	**Germany**	-1.0167	-14.63
Brazil	0.104948	1.51	**Ghana**	0.146903	2.11
Brunei Darussalam	-0.42317	-6.09	**Greece**	0.248026	3.57
Bulgaria	0.40256	5.79	**Guatemala**	0.433603	6.24
Burkina Faso	0.738536	10.62	**Guyana**	0.415896	5.98
Burundi	1.354185	19.48	**Haiti**	1.604317	23.08
Cambodia	0.219397	3.16	**Honduras**	0.354349	5.10
Cameroon	0.60704	8.73	**Hong Kong SAR**	-1.35828	-19.54
Canada	-1.21499	-17.48	**Hungary**	-0.01417	-0.20
Cape Verde	0.218918	3.15	**Iceland**	-0.94079	-13.53
Chad	1.150261	16.55	**India**	0.08988	1.29
Chile	-0.69213	-9.96	**Indonesia**	0.036622	0.53

Institutional development index – the year 2011

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
China	-0.14773	-2.13	**Iran, Islamic Rep.**	0.256014	3.68
Colombia	0.194295	2.80	**Ireland**	-0.87606	-12.60
Israel	-0.91109	-13.11	**Pakistan**	0.553716	7.97
Italy	0.245748	3.54	**Panama**	-0.05584	-0.80
Jamaica	0.200478	2.88	**Paraguay**	0.764196	10.99
Japan	-0.9736	-14.01	**Peru**	0.190798	2.74
Jordan	-0.11384	-1.64	**Philippines**	0.519074	7.47
Kazakhstan	0.366368	5.27	**Poland**	-0.09755	-1.40
Kenya	0.301272	4.33	**Portugal**	-0.34798	-5.01
Korea, Rep.	-0.21181	-3.05	**Puerto Rico**	-0.42006	-6.04
Kuwait	-0.14315	-2.06	**Qatar**	-1.00937	-14.52
Kyrgyz Republic	0.846303	12.18	**Romania**	0.430011	6.19
Latvia	-0.02197	-0.32	**Russian Federation**	0.620665	8.93
Lebanon	0.515561	7.42	**Rwanda**	-0.55301	-7.96
Lesotho	0.854565	12.29	**Saudi Arabia**	-0.92954	-13.37
Lithuania	-0.1368	-1.97	**Senegal**	0.384409	5.53
Luxembourg	-1.17232	-16.87	**Serbia**	0.523268	7.53
Macedonia, FYR	0.238157	3.43	**Singapore**	-1.61753	-23.27
Madagascar	0.901587	12.97	**Slovak Republic**	0.250952	3.61
Malawi	0.196759	2.83	**Slovenia**	-0.18131	-2.61
Malaysia	-0.91412	-13.15	**South Africa**	-0.40264	-5.79
Mali	0.731374	10.52	**Spain**	-0.37814	-5.44
Malta	-0.21151	-3.04	**Sri Lanka**	-0.17791	-2.56
Mauritania	0.867659	12.48	**Suriname**	0.534684	7.69
Mauritius	-0.31911	-4.59	**Swaziland**	0.500816	7.20
Mexico	0.251539	3.62	**Sweden**	-1.54784	-22.27
Moldova	0.497159	7.15	**Switzerland**	-1.41427	-20.35
Mongolia	0.612922	8.82	**Syria**	0.396592	5.71
Montenegro	-0.35951	-5.17	**Taiwan, China**	-0.83473	-12.01
Morocco	0.137527	1.98	**Tajikistan**	0.195768	2.82
Mozambique	0.556955	8.01	**Tanzania**	0.274189	3.94
Namibia	-0.29593	-4.26	**Thailand**	-0.07662	-1.10
Nepal	0.76963	11.07	**Timor-Leste**	0.927902	13.35
Netherlands	-1.23149	-17.72	**Tunisia**	-0.33688	-4.85
New Zealand	-1.40041	-20.15	**Turkey**	0.098885	1.42

Institutional development index – the year 2011

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Nicaragua	0.800948	11.52	**Uganda**	0.399232	5.74
Nigeria	0.635126	9.14	**Ukraine**	0.561899	8.08
Norway	-1.26319	-18.17	**United Arab Emirates**	-0.76353	-10.98
Oman	-0.67357	-9.69			
United Kingdom	-1.16197	-16.72			
United States	-0.53083	-7.64			
Uruguay	-0.42344	-6.09			
Venezuela	1.110435	15.98			
Vietnam	0.201646	2.90			
Yemen	1.399067	20.13			
Zambia	0.193084	2.78			
Zimbabwe	0.62286	8.96			

Institutional development index – the year 2012

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Albania	0.263832	3.77	**China**	-0.04828	-0.76
Algeria	1.16256	16.82	**Colombia**	0.282097	4.04
Argentina	0.764777	11.05	**Costa Rica**	0.195385	2.78
Armenia	0.142378	2.01	**Côte d'Ivoire**	0.858877	12.41
Australia	-0.98741	-14.40	**Croatia**	0.237254	3.39
Austria	-0.91105	-13.29	**Cyprus**	-0.62541	-9.14
Azerbaijan	-0.03431	-0.56	**Czech Republic**	0.044812	0.59
Bahrain	-0.71024	-10.38	**Denmark**	-1.10816	-16.16
Bangladesh	0.634552	9.16	**Dominican Republic**	0.49418	7.12
Barbados	-0.51525	-7.54	**Ecuador**	0.542622	7.82
Belgium	-0.91737	-13.39	**Egypt**	0.435553	6.27
Benin	0.548709	7.91	**El Salvador**	0.622295	8.98
Bolivia	0.561945	8.10	**Estonia**	-0.67113	-9.81
Bosnia and Herzegovina	0.38422	5.52	**Ethiopia**	0.44393	6.39
Botswana	-0.35601	-5.23	**Finland**	-1.58888	-23.14
Brazil	0.129093	1.81	**France**	-0.76962	-11.24
Brunei Darussalam	-0.47588	-6.97	**Gabon**	0.393206	5.65
Bulgaria	0.359245	5.16	**Gambia, The**	-0.17384	-2.59
Burkina Faso	0.621598	8.97	**Georgia**	0.054355	0.73
Burundi	1.301908	18.85	**Germany**	-1.05581	-15.40
Cambodia	0.076886	1.06	**Ghana**	0.164788	2.33
Cameroon	0.544549	3.77	**Greece**	0.387162	5.56
Canada	-1.20804	16.82	**Guatemala**	0.382935	5.50
Cape Verde	0.185133	8.73	**Guinea**	0.989597	14.31
Chad	1.147845	-17.48	**Guyana**	0.446079	6.42
Chile	-0.69456	3.15	**Haiti**	1.439148	20.84
China	-0.04828	16.55	**Honduras**	0.4216	6.06
Colombia	0.282097	-9.96	**Hong Kong SAR**	-1.36826	-19.93
Costa Rica	0.195385	-2.13	**Hungary**	0.095726	1.33
Côte d'Ivoire	0.858877	2.80	**Iceland**	-0.92453	-13.49
Croatia	0.237254	-13.11	**India**	0.088604	1.23
Cyprus	-0.62541	3.54	**Indonesia**	0.052226	0.70
Cameroon	0.544549	2.88	**Iran, Islamic Rep.**	0.231285	3.30
Canada	-1.20804	-14.01	**Ireland**	-0.93681	-13.67
Cape Verde	0.185133	-1.64	**Israel**	-0.85528	-12.48

Institutional development index – the year 2012

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Chad	1.147845	5.27	**Italy**	0.302627	4.33
Chile	-0.69456	4.33	**Jamaica**	0.191211	2.72
Japan	-0.95102	-13.87	**Panama**	-0.19939	-2.96
Jordan	-0.2174	-3.22	**Paraguay**	0.767938	11.09
Kazakhstan	0.08613	1.19	**Peru**	0.304333	4.36
Kenya	0.2691	3.85	**Philippines**	0.350253	5.03
Korea, Rep.	-0.26381	-3.89	**Poland**	-0.04272	-0.68
Kuwait	-0.05007	-0.79	**Portugal**	-0.36284	-5.33
Kyrgyz Republic	0.819281	11.84	**Puerto Rico**	-0.50896	-7.45
Latvia	-0.1115	-1.68	**Qatar**	-1.2598	-18.36
Lebanon	0.540378	7.79	**Romania**	0.48925	7.05
Lesotho	0.853686	12.34	**Russian Federation**	0.687083	9.92
Liberia	0.110365	1.54	**Rwanda**	-0.63604	-9.30
Libya	0.846503	12.23	**Saudi Arabia**	-0.8707	-12.71
Lithuania	-0.19183	-2.85	**Senegal**	0.364814	5.24
Luxembourg	-1.15828	-16.88	**Serbia**	0.569659	8.21
Macedonia, FYR	0.215679	3.07	**Seychelles**	-0.10266	-1.55
Madagascar	0.959987	13.88	**Sierra Leone**	0.9509	13.75
Malawi	0.341378	4.90	**Singapore**	-1.6436	-23.93
Malaysia	-0.91396	-13.34	**Slovak Republic**	0.273133	3.91
Mali	0.701505	10.13	**Slovenia**	-0.12719	-1.91
Malta	-0.2304	-3.41	**South Africa**	-0.45854	-6.72
Mauritania	0.79051	11.42	**Spain**	-0.3678	-5.40
Mauritius	-0.38099	-5.59	**Sri Lanka**	-0.16729	-2.49
Mexico	0.159489	2.26	**Suriname**	0.512476	7.38
Moldova	0.526929	7.59	**Swaziland**	0.547343	7.89
Mongolia	0.526619	7.59	**Sweden**	-1.39594	-20.34
Montenegro	-0.28244	-4.16	**Switzerland**	-1.43673	-20.93
Morocco	0.04651	0.61	**Taiwan, China**	-0.84855	-12.39
Mozambique	0.628656	9.07	**Tajikistan**	0.154086	2.18
Namibia	-0.10272	-1.55	**Tanzania**	0.315763	4.53
Nepal	0.652896	9.42	**Thailand**	-0.02422	-0.41
Netherlands	-1.32666	-19.33	**Timor-Leste**	0.688997	9.95
New Zealand	-1.50977	-21.99	**Trinidad and Tobago**	0.223681	3.19
Nicaragua	0.620856	8.96	**Turkey**	-0.06384	-0.99
Nigeria	0.493136	7.10	**Uganda**	0.40638	5.84

Institutional development index – the year 2012

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Norway	-1.2477	-18.18	**Ukraine**	0.459599	6.61
Oman	-0.71608	-10.46	**United Arab Emirates**	-0.99865	-14.57
Pakistan	0.552012	7.96	**United Kingdom**	-1.25184	-18.24
Zimbabwe	0.62286	8.96	**Yemen**	1.194162	17.28
United States	-0.53071	-7.77	**Zambia**	0.072596	0.99
Uruguay	-0.2811	-4.14	**Zimbabwe**	0.603715	8.71
Venezuela	1.192805	17.26	**Yemen**	1.194162	17.28

Institutional development index – the year 2013

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Albania	0.251149028	3.65	**Dominican Republic**	0.498986927	7.04
Algeria	0.537273212	7.56	**Ecuador**	0.182029661	2.70
Angola	1.061808101	14.73	**Egypt**	0.443085004	6.27
Argentina	0.691669372	9.67	**El Salvador**	0.576050405	8.09
Armenia	-0.015664753	0.00	**Estonia**	-0.661287637	-8.84
Australia	-0.986457835	-13.28	**Ethiopia**	0.582518433	8.18
Austria	-0.982550471	-13.23	**Finland**	-1.652283109	-22.39
Azerbaijan	-0.191417829	-2.41	**France**	-0.793231052	-10.64
Bahrain	-0.760555596	-10.19	**Gabon**	0.51736891	7.29
Bangladesh	0.523280573	7.37	**Gambia, The**	0.153330693	2.31
Barbados	-0.596769582	-7.95	**Georgia**	0.04016174	0.76
Belgium	-0.964639854	-12.99	**Germany**	-1.198777263	-16.19
Benin	0.841403838	11.72	**Ghana**	0.191408215	2.83
Bhutan	0.116970929	1.81	**Greece**	0.364696458	5.20
Bolivia	0.506295462	7.14	**Guatemala**	0.273816023	3.96
Bosnia	0.173660354	2.59	**Guinea**	1.235016162	17.10
Botswana	-0.188999759	-2.38	**Guyana**	0.310785795	4.46
Brazil	0.120090368	1.85	**Haiti**	1.204820981	16.69
Brunei	-0.780041003	-10.46	**Honduras**	0.564416039	7.93
Bulgaria	0.35438926	5.06	**Hong Kong SAR**	-1.538341864	-20.83
Burkina Faso	0.945736771	13.15	**Hungary**	0.149063029	2.25
Burundi	1.382006873	19.12	**Iceland**	-0.828181856	-11.12
Cambodia	0.368929159	5.26	**India**	-0.199088234	-2.51
Cameroon	0.649366788	9.09	**Indonesia**	-0.189032244	-2.38
Canada	-1.187501769	-16.03	**Iran, Islamic Rep.**	0.126825727	1.95
Cape Verde	0.19029019	2.81	**Ireland**	-1.001403237	-13.49
Chad	1.401123076	19.38	**Israel**	-0.734938665	-9.84
Chile	-0.734777515	-9.84	**Italy**	0.19724288	2.91
China	-0.400444575	-5.27	**Jamaica**	0.239488222	3.49
Colombia	0.262907909	3.81	**Japan**	-1.204537648	-16.27
Costa Rica	-0.14717102	-1.80	**Jordan**	-0.424448463	-5.60
Côte d'Ivoire	0.732391119	10.23	**Kazakhstan**	0.006863115	0.30
Croatia	0.237729503	3.46	**Kenya**	0.229621694	3.35
Cyprus	-0.502052941	-6.66	**Korea, Rep.**	-0.335438833	-4.38
Czech Republic	0.063210283	1.07	**Kuwait**	-0.349763191	-4.57
Denmark	-0.973960678	-13.11	**Kyrgyz Republic**	0.758694536	10.59

Institutional development index – the year 2013

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Lao PDR	0.214454505	3.14	**Portugal**	-0.31840491	-4.15
Latvia	-0.136384541	-1.66	**Puerto Rico**	-0.542450821	-7.21
Lebanon	0.588822698	8.26	**Qatar**	-1.63552563	-22.16
Lesotho	0.641420947	8.98	**Romania**	0.385178406	5.48
Liberia	0.484669467	6.84	**Russian Federation**	0.471135724	6.65
Libya	0.573340103	8.05	**Rwanda**	-0.49761469	-6.60
Lithuania	-0.148950851	-1.83	**Saudi Arabia**	-1.101374131	-14.86
Luxembourg	-1.220032204	-16.48	**Senegal**	0.395426149	5.62
Macedonia, FYR	0.000504996	0.22	**Serbia**	0.60139723	8.44
Madagascar	0.974533888	13.54	**Seychelles**	-0.140419697	-1.71
Malawi	0.625026691	8.76	**Sierra Leone**	0.931138829	12.95
Malaysia	-1.019144398	-13.73	**Singapore**	-1.764610381	-23.93
Mali	0.851075702	11.85	**Slovak Republic**	0.309862438	4.45
Malta	-0.569511985	-7.58	**Slovenia**	-0.060628435	-0.62
Mauritania	0.98436808	13.68	**South Africa**	-0.503364551	-6.68
Mauritius	-0.494152353	-6.55	**Spain**	-0.32006224	-4.17
Mexico	0.018401285	0.46	**Sri Lanka**	-0.210185102	-2.67
Moldova	0.704121525	9.84	**Suriname**	0.468213952	6.62
Mongolia	0.523101822	7.37	**Swaziland**	0.331851414	4.75
Montenegro	-0.122700312	-1.47	**Sweden**	-1.425256196	-19.29
Morocco	-0.096102528	-1.10	**Switzerland**	-1.441033361	-19.50
Mozambique	0.845494758	11.78	**Taiwan, China**	-0.951056124	-12.80
Myanmar	1.186140666	16.44	**Tanzania**	0.510388495	7.19
Namibia	-0.088452465	-1.00	**Thailand**	-0.077640047	-0.85
Nepal	0.702797001	9.82	**Timor-Leste**	0.579478011	8.14
Netherlands	-1.327264637	-17.95	**Trinidad and Tobago**	0.115037211	1.78
New Zealand	-1.526033837	-20.66	**Tunisia**	0.027095013	0.58
Nicaragua	0.424766535	6.02	**Turkey**	-0.298562417	-3.87
Nigeria	0.703004935	9.83	**Uganda**	0.624570339	8.75
Norway	-1.347947373	-18.23	**Ukraine**	0.648682838	9.08
Oman	-1.101740976	-14.86	**United Arab Emirates**	-1.296146977	-17.52
Pakistan	0.50665396	7.14	**United Kingdom**	-1.297986222	-17.55
Panama	-0.330506537	-4.31	**United States**	-0.96015615	-12.92
Paraguay	0.815298383	11.36	**Uruguay**	-0.243480562	-3.12
Peru	0.277602357	4.01	**Venezuela**	1.222061467	16.93

Institutional development index – the year 2013

Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)	Country	Institutional Development Index (Raw version)	IDI – Standardized (*10)
Vietnam	0.329267221	4.71			
Yemen	1.047932978	14.55			
Zambia	0.062078958	1.06			
Zimbabwe	0.764797537	10.67			

10.2 Institutional uncertainty dimension (years 2011-2013)

Institutional Uncertainty dimension – calculated for the year 2011

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Afghanistan	17.00	Central African Republic	15.07	Germany	-16.12
Albania	-1.31	Chad	17.41	Ghana	-2.22
Algeria	2.79	Chile	-14.58	Greece	-9.83
Angola	4.25	China	1.87	Grenada	-0.90
Antigua & Barbuda	-4.57	Colombia	7.44	Guatemala	3.34
Argentina	-11.58	Comoros	6.05	Guinea	13.70
Armenia	1.00	Congo (D. R.)	16.44	Guinea-Bissau	12.36
Australia	-19.07	Congo (Republic)	8.47	Guyana	1.00
Austria	-19.50	Costa Rica	-9.41	Haiti	16.65
Azerbaijan	5.41	Cote d'Ivoire	14.65	Honduras	2.61
Bahamas	-5.88	Croatia	-4.91	Hungary	-9.70
Bahrain	-5.02	Cuba	2.74	Iceland	-16.78
Bangladesh	10.56	Cyprus	0.47	India	2.80
Barbados	-6.97	Czech Republic	-12.49	Indonesia	4.93
Belarus	2.72	Denmark	-19.82	Iran, Islamic Rep.	9.21
Belgium	-16.14	Dijbouti	5.13	Iraq	15.52
Belize	-0.96	Dominican Republic	1.98	Ireland	-19.76
Benin	3.34	Ecuador	5.09	Israel	5.51
Bhutan	5.54	Egypt	7.23	Italy	-10.08
Bolivia	4.50	El Salvador	1.11	Jamaica	-1.89
Bosnia	5.96	Equatorial Guinea	5.03	Japan	-17.02
Botswana	-2.01	Eritrea	9.90	Jordan	1.78
Brazil	-4.25	Estonia	-8.47	Kazakhstan	-0.33
Brunei	-2.83	Ethiopia	11.89	Kenya	12.83
Bulgaria	-5.03	Fiji	5.00	Kuwait	-4.94
Burkina Faso	7.13	Finland	-21.80	Kyrgyzstan	10.20
Burundi	12.22	France	-16.61	Laos	6.99
Cambodia	7.34	Gabon	0.61	Latvia	-7.01

Institutional Uncertainty dimension – calculated for the year 2011

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Cameroon	9.95	**Gambia**	4.07	**Lebanon**	9.18
Canada	-19.32	**Georgia**	8.03	**Lesotho**	4.20
Liberia	10.55	**Philippines**	6.82	**Turkey**	0.15
Libya	-2.17	**Poland**	-10.36	**Turkmenistan**	2.50
Lithuania	-11.36	**Portugal**	-18.13	**Uganda**	11.24
Luxembourg	-18.69	**Qatar**	-9.25	**Ukraine**	0.33
Macedonia	1.23	**Romania**	-4.40	**United Arab Emirates**	-9.97
Madagascar	4.69	**Russian Federation**	2.22	**United Kingdom**	-16.06
Malawi	8.87	**Rwanda**	8.66	**United States**	-17.35
Malaysia	-1.72	**Samoa**	0.67	**Uruguay**	-13.57
Maldives	2.26	**Sao Tome**	2.06	**Uzbekistan**	7.15
Mali	3.83	**Saudi Arabia**	1.26	**Venezuela**	2.83
Malta	-10.51	**Senegal**	1.59	**Vietnam**	1.69
Mauritania	8.05	**Serbia**	2.81	**Yemen**	13.36
Mauritius	-12.66	**Seychelles**	-1.42	**Zambia**	5.74
Mexico	1.62	**Sierra Leone**	8.93	**Zimbabwe**	16.26
Micronesia	1.39	**Singapore**	-16.43		
Moldova	5.27	**Slovakia**	-10.69		
Mongolia	-6.53	**Slovenia**	-16.29		
Montenegro	-5.50	**Solomon Islands**	6.12		
Morocco	1.69	**Somalia**	19.44		
Mozambique	4.53	**South Africa**	-2.13		
Myanmar	11.23	**Korea, Rep.**	-12.49		
Namibia	-1.13	**Spain**	-11.50		
Nepal	9.32	**Sri Lanka**	10.04		
Netherlands	-17.78	**Sudan**	16.49		
New Zealand	-20.70	**Suriname**	0.12		
Nicaragua	3.99	**Swaziland**	4.41		
Niger	12.09	**Sweden**	-20.82		
Nigeria	11.99	**Switzerland**	-21.24		
North Korea	9.06	**Syria**	6.57		
Norway	-22.33	**Tajikistan**	7.75		
Oman	-10.59	**Tanzania**	4.31		
Pakistan	14.65	**Thailand**	3.45		
Panama	-7.17	**Timor-Leste**	11.30		

Institutional Uncertainty dimension – calculated for the year 2011

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Papua New Guinea	4.27	**Togo**	7.24		

Institutional Uncertainty dimension – calculated for the year 2012

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Afghanistan	16.50	**Cape Verde**	1.89	**Georgia**	7.65
Albania	-1.32	**Central African Republic**	14.46	**Germany**	-17.05
Algeria	3.17	**Chad**	16.06	**Ghana**	-2.14
Angola	4.30	**Chile**	-13.26	**Greece**	-8.59
Antigua & Barbuda	-5.07	**China**	1.35	**Grenada**	-1.13
Argentina	-11.91	**Colombia**	6.00	**Guatemala**	3.26
Armenia	1.16	**Comoros**	5.76	**Guinea**	13.87
Australia	-18.55	**Congo (D. R.)**	17.96	**Guinea Bissau**	13.23
Austria	-19.43	**Congo (Republic)**	8.06	**Guyana**	0.63
Azerbaijan	4.45	**Costa Rica**	-9.82	**Haiti**	15.50
Bahamas	-6.54	**Cote d'Ivoire**	15.57	**Honduras**	2.74
Bahrain	-3.57	**Croatia**	-5.36	**Hungary**	-9.58
Bangladesh	9.78	**Cuba**	1.16	**Iceland**	-17.22
Barbados	-7.42	**Cyprus**	0.32	**India**	2.42
Belarus	2.32	**Czech Republic**	-13.63	**Indonesia**	4.44
Belgium	-16.32	**Denmark**	-20.51	**Iran**	9.27
Belize	-1.40	**Dijbouti**	5.81	**Iraq**	15.61
Benin	3.07	**Dominican Republic**	0.93	**Ireland**	-19.15
Bhutan	4.60	**Ecuador**	4.19	**Israel**	4.39
Bolivia	4.20	**Egypt**	8.96	**Italy**	-9.85
Bosnia and Herzegovina	4.59	**El Salvador**	0.75	**Jamaica**	-2.38
Botswana	-2.72	**Equatorial Guinea**	4.56	**Japan**	-11.49
Brazil	-4.50	**Eritrea**	10.47	**Jordan**	2.06
Brunei	-3.57	**Estonia**	-9.21	**Kazakhstan**	-0.09
Bulgaria	-6.06	**Ethiopia**	11.85	**Kenya**	12.85
Burkina Faso	6.43	**Fiji**	4.55	**Korea, Rep.**	-13.48
Burundi	11.84	**Finland**	-21.95	**Kuwait**	-5.30
Cambodia	7.50	**France**	-16.69	**Kyrgyzstan**	8.22
Cameroon	9.56	**Gabon**	0.25	**Laos**	6.61
Canada	-19.97	**Gambia**	3.85	**Latvia**	-8.00
Lebanon	8.50	**Paraguay**	-1.23	**Tunisia**	1.04
Lesotho	3.50	**Peru**	0.64	**Turkey**	3.14

Institutional Uncertainty dimension – calculated for the year 2012

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Liberia	10.54	**Philippines**	5.98	**Turkmenistan**	1.70
Libya	4.98	**Poland**	-11.37	**Uganda**	11.26
Lithuania	-11.79	**Portugal**	-17.20	**Ukraine**	-0.31
Luxembourg	-18.90	**Qatar**	-10.19	**UAE**	-10.63
Macedonia	0.53	**Romania**	-4.42	**United Kingdom**	-15.39
Madagascar	4.55	**Russian Federation**	2.25	**United States**	-17.20
Malawi	7.77	**Rwanda**	7.95	**Uruguay**	-13.50
Malaysia	-1.72	**Samoa**	0.11	**Uzbekistan**	7.02
Maldives	2.05	**Sao Tome**	2.12	**Venezuela**	1.88
Mali	3.58	**Saudi Arabia**	0.57	**Vietnam**	1.03
Malta	-10.95	**Senegal**	3.26	**Zambia**	6.62
Mauritania	7.72	**Serbia**	3.26	**Zimbabwe**	15.62
Mauritius	-12.31	**Seychelles**	-2.32		
Mexico	0.51	**Sierra Leone**	8.43		
Micronesia	1.27	**Singapore**	-16.59		
Moldova	4.38	**Slovakia**	-10.26		
Mongolia	-6.74	**Slovenia**	-16.73		
Montenegro	-5.72	**Solomon Islands**	6.14		
Morocco	2.07	**South Africa**	-2.64		
Mozambique	4.04	**South Sudan**	16.46		
Myanmar	10.37	**Spain**	-11.69		
Namibia	-1.31	**Sri Lanka**	9.85		
Nepal	9.44	**Sudan**	17.52		
Netherlands	-17.89	**Suriname**	0.30		
New Zealand	-20.32	**Swaziland**	4.50		
Nicaragua	3.36	**Sweden**	-21.71		
Niger	11.37	**Switzerland**	-21.02		
Nigeria	12.70	**Syria**	10.40		
North Korea	8.84	**Tajikistan**	6.62		
Norway	-20.38	**Tanzania**	3.88		
Oman	-9.59	**Thailand**	3.16		
Pakistan	14.60	**Timor-Leste**	10.70		
Panama	-8.04	**Togo**	6.75		

Institutional Uncertainty dimension – calculated for the year 2013

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Afghanistan	15.9	**Colombia**	5.6	**Honduras**	3.0
Albania	-2.0	**Comoros**	5.8	**Hungary**	-9.6
Algeria	3.5	**Congo (D. R.)**	17.7	**Iceland**	-19.1
Angola	6.3	**Congo (Republic)**	7.9	**India**	2.7
Antigua & Barbuda	-5.2	**Costa Rica**	-9.4	**Indonesia**	3.3
Argentina	-11.0	**Cote d'Ivoire**	14.3	**Iran, Islamic Rep.**	8.6
Armenia	0.7	**Croatia**	-6.6	**Iraq**	14.6
Australia	-19.4	**Cuba**	1.0	**Ireland**	-19.3
Austria	-18.7	**Cyprus**	-0.6	**Israel**	4.3
Azerbaijan	3.5	**Czech Republic**	-13.0	**Italy**	-10.4
Bahamas	-6.5	**Denmark**	-20.5	**Jamaica**	-2.0
Bahrain	-3.2	**Dijbouti**	6.4	**Japan**	-14.2
Bangladesh	9.5	**Dominican Republic**	1.1	**Jordan**	2.5
Barbados	-7.9	**Ecuador**	3.6	**Kazakhstan**	-0.3
Belarus	2.7	**Egypt**	8.7	**Kenya**	12.8
Belgium	-16.7	**El Salvador**	0.9	**Korea, Rep.**	-14.5
Belize	-1.3	**Equatorial Guinea**	5.6	**Kuwait**	-4.5
Benin	2.9	**Eritrea**	10.4	**Kyrgyzstan**	6.8
Bhutan	4.6	**Estonia**	-10.3	**Laos**	5.5
Bolivia	4.0	**Ethiopia**	12.1	**Latvia**	-9.5
Bosnia	3.1	**Fiji**	4.6	**Lebanon**	7.5
Botswana	-3.2	**Finland**	-22.1	**Lesotho**	3.7
Brazil	-4.4	**France**	-16.1	**Liberia**	10.6
Brunei	-3.4	**Gabon**	0.4	**Libya**	5.6
Bulgaria	-6.4	**Gambia**	4.4	**Lithuania**	-11.8
Burkina Faso	8.1	**Georgia**	6.6	**Luxembourg**	-19.6
Burundi	11.7	**Germany**	-17.4	**Macedonia**	-0.4
Cambodia	7.2	**Ghana**	-0.9	**Madagascar**	4.9
Cameroon	9.6	**Greece**	-8.1	**Malawi**	7.8
Canada	-19.2	**Grenada**	-1.8	**Malaysia**	-2.1
Cape Verde	1.4	**Guatemala**	4.1	**Maldives**	2.2
Central African Republic	14.7	**Guinea**	13.2	**Mali**	8.2
Chad	16.1	**Guinea Bissau**	13.3	**Malta**	-11.6

Institutional Uncertainty dimension – calculated for the year 2013

Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)	Country	Institutional uncertainty (10*standardized)
Chile	-12.6	Guyana	0.3	Mauritania	9.2
China	3.5	Haiti	15.1	Mauritius	-11.3
Mexico	0.7	Sao Tome	2.2	United Kingdom	-16.06
Micronesia	1.3	Saudi Arabia	0.7	United Arab Emirates	-10.4
Moldova	3.0	Senegal	4.6	United Kingdom	-15.7
Mongolia	-6.1	Serbia	2.3	United States	-16.2
Montenegro	-6.3	Seychelles	-2.6	Uruguay	-13.7
Morocco	1.5	Sierra Leone	8.7	Uzbekistan	6.9
Mozambique	4.8	Singapore	-16.0	Venezuela	1.5
Myanmar	10.0	Slovakia	-10.6	Vietnam	1.0
Namibia	-0.7	Slovenia	-16.5	Yemen	15.9
Nepal	9.0	Solomon Islands	6.1	Zambia	6.8
Netherlands	-18.0	Somalia	18.6	Zimbabwe	14.8
New Zealand	-20.5	South Africa	-1.6		
Nicaragua	3.7	South Sudan	17.0		
Niger	12.2	Spain	-10.7		
Nigeria	12.5	Sri Lanka	9.8		
North Korea	9.7	Sudan	17.6		
Norway	-20.7	Suriname	0.4		
Oman	-8.4	Swaziland	6.0		
Pakistan	14.3	Sweden	-21.6		
Panama	-7.0	Switzerland	-20.8		
Papua New Guinea	5.5	Syria	11.7		
Paraguay	-0.1	Tajikistan	6.5		
Peru	0.5	Thailand	2.2		
Philippines	5.5	Timor-Leste	9.4		
Poland	-12.4	Togo	7.0		
Portugal	-16.5	Tunisia	2.5		
Qatar	-10.1	Turkey	2.6		
Romania	-5.3	Turkmenistan	2.2		
Russian Federation	2.5	Uganda	11.2		
Rwanda	7.9	Ukraine	-1.5		
Samoa	-0.3				

10.3 Relative Institutional Challenge Index calculated for the year 2013 for a set of 72 countries

Host country Home country	Algeria	Argentina	Australia	Austria	Azerbaijan	Belgium	Bolivia	Brazil	Bulgaria	Cambodia	Cameroon	Canada	Chile	China	Colombia	Croatia
Algeria	N.A	-8.2	-13.4	-13.1	-10.4	-13.1	1.7	-4.9	-1.7	0.4	6.7	-15.5	-8.5	-11.2	3.2	0.8
Argentina	4.1	N.A	-19.9	-19.5	-7.6	-19.6	0.3	-11.3	-8.1	4.2	13.1	-21.9	-14.9	-12.6	-3.2	-5.7
Australia	30.3	11.5	N.A	-44.8	18.6	-40.4	26.5	5.7	4.9	30.3	39.3	-48.1	-30.5	13.6	21.4	-1.1
Austria	29.8	11.1	-45.6	N.A	18.1	-40.8	26.1	5.3	4.4	29.9	38.8	-47.6	-30.9	13.1	21.0	-1.5
Azerbaijan	-0.5	-10.0	-15.2	-14.9	N.A	-14.9	-0.1	-6.7	-3.5	-0.5	8.5	-17.3	-10.3	-12.9	1.4	-1.0
Belgium	27.6	8.9	-43.4	-43.0	15.9	N.A	23.8	3.1	2.2	27.7	36.6	-45.4	-33.2	10.9	18.8	-3.7
Bolivia	1.6	-12.1	-17.3	-17.0	-10.1	-17.0	N.A	-8.8	-5.6	1.6	10.6	-19.4	-12.4	-15.0	-0.7	-3.1
Brazil	8.7	-10.1	-24.4	-24.1	-3.0	-24.1	4.9	N.A	-12.7	8.7	17.7	-26.5	-19.5	-8.0	-0.2	-10.2
Bulgaria	10.7	-8.1	-26.4	-26.1	-1.0	-26.2	6.9	-13.8	N.A	10.8	19.7	-28.5	-21.5	-6.0	1.9	-12.3
Cambodia	-1.0	-9.6	-14.8	-14.5	-11.8	-14.5	0.3	-6.2	-3.0	N.A	8.0	-16.8	-9.8	-12.5	1.9	-0.6
Cameroon	-1.0	-6.9	-12.1	-11.8	-9.1	-11.8	3.0	-3.6	-0.4	1.8	N.A	-14.2	-7.2	-9.8	4.5	2.1
Canada	30.8	12.0	-45.6	-44.4	19.1	-39.9	27.0	6.2	5.4	30.8	39.8	N.A	-30.0	14.0	21.9	-0.6
Chile	25.0	6.2	-40.7	-40.4	13.3	-40.4	21.2	0.5	-0.4	25.0	34.0	-42.8	N.A	8.3	16.2	-6.4
China	1.6	-12.2	-17.4	-17.1	-10.1	-17.1	-2.2	-8.8	-5.6	1.7	10.6	-19.4	-12.4	N.A	-0.7	-3.2
Colombia	4.9	-13.9	-20.6	-20.3	-6.8	-20.3	1.1	-12.1	-8.9	4.9	13.9	-22.7	-15.7	-11.9	N.A	-6.4
Croatia	14.9	-3.9	-30.6	-30.3	3.2	-30.4	11.1	-9.6	-10.5	15.0	23.9	-32.7	-25.7	-1.8	6.1	N.A
Denmark	33.2	14.5	-43.1	-41.9	21.5	-37.5	29.4	8.7	7.8	33.3	42.2	-46.1	-27.6	16.5	24.4	1.9
Ecuador	1.2	-11.7	-16.9	-16.6	-10.5	-16.6	-1.8	-8.4	-5.2	1.2	10.2	-19.0	-12.0	-14.6	-0.3	-2.7
Egypt	-1.3	-7.2	-12.4	-12.1	-9.4	-12.1	2.7	-3.9	-0.7	1.4	5.7	-14.5	-7.5	-10.2	4.2	1.8
Finland	34.1	15.4	-42.2	-41.0	22.4	-36.6	30.3	9.6	8.7	34.2	43.1	-45.2	-26.7	17.4	25.3	2.8
France	24.8	6.0	-40.5	-40.2	13.1	-40.2	21.0	0.2	-0.6	24.8	33.8	-42.5	-35.6	8.0	15.9	-6.6
Germany	29.0	10.2	-44.7	-44.4	17.3	-41.7	25.2	4.4	3.6	29.0	38.0	-46.7	-31.8	12.2	20.1	-2.4
Greece	13.2	-5.5	-29.0	-28.7	1.5	-28.7	9.4	-11.3	-12.2	13.3	22.2	-31.0	-24.0	-3.5	4.4	-14.8
Iceland	29.1	10.3	-44.8	-44.5	17.4	-41.6	25.3	4.5	3.6	29.1	38.1	-46.8	-31.7	12.3	20.2	-2.3
India	4.3	-14.5	-20.0	-19.7	-7.4	-19.7	0.5	-11.5	-8.3	4.3	13.3	-22.1	-15.1	-12.4	-3.4	-5.8
Iran, Islamic Rep.	1.6	-4.3	-9.5	-9.2	-6.5	-9.3	5.6	-1.0	2.2	4.3	7.9	-11.6	-4.6	-7.3	7.1	4.7
Ireland	28.3	9.5	-44.0	-43.7	16.6	-42.4	24.5	3.7	2.9	28.3	37.3	-46.1	-32.5	11.5	19.4	-3.1
Israel	17.4	-1.3	-33.2	-32.8	5.7	-32.9	13.6	-7.1	-8.0	17.5	26.4	-35.2	-28.2	0.7	8.6	-13.9
Italy	15.8	-3.0	-31.5	-31.2	4.1	-31.3	12.0	-8.7	-9.6	15.8	24.8	-33.6	-26.6	-0.9	7.0	-15.6
Japan	26.8	8.0	-42.5	-42.2	15.1	-42.2	23.0	2.2	1.4	26.8	35.8	-44.6	-34.0	10.1	17.9	-4.6
Jordan	6.9	-11.9	-22.6	-22.3	-4.8	-22.3	3.1	-14.1	-10.9	6.9	15.9	-24.7	-17.7	-9.9	-2.0	-8.4
Korea, Rep.	19.3	0.5	-35.0	-34.7	7.6	-34.7	15.5	-5.3	-6.1	19.3	28.3	-37.0	-30.1	2.5	10.4	-12.1
Kuwait	8.1	-10.7	-23.8	-23.5	-3.6	-23.5	4.3	-15.2	-12.1	8.1	17.1	-25.8	-18.9	-8.7	-0.8	-9.6

Lebanon	-0.7	-9.8	-15.0	-14.7	-12.0	-14.7	0.1	-6.5	-3.3	-0.7	8.3	-17.1	-10.1	-12.7	1.6	-0.8
Libya	6.8	0.8	-4.4	-4.1	-1.4	-4.1	10.7	4.2	7.4	9.5	13.1	-6.4	0.6	-2.1	12.3	9.8
Malaysia	14.3	-4.4	-30.1	-29.7	2.6	-29.8	10.5	-10.2	-11.1	14.4	23.3	-32.1	-25.1	-2.4	5.5	-15.9
Mexico	6.9	-11.9	-22.6	-22.3	-4.8	-22.3	3.1	-14.1	-10.9	6.9	15.9	-24.7	-17.7	-9.8	-1.9	-8.4
Morocco	4.4	-14.4	-20.1	-19.8	-7.3	-19.8	0.6	-11.5	-8.3	4.4	13.4	-22.1	-15.2	-12.4	-3.5	-5.9
Netherlands	31.9	13.1	-44.4	-43.2	20.2	-38.8	28.1	7.3	6.5	31.9	40.9	-47.4	-28.9	15.2	23.0	0.5
New Zealand	33.6	14.8	-42.7	-41.5	21.9	-37.1	29.8	9.0	8.2	33.6	42.6	-45.7	-27.2	16.9	24.7	2.2
Nicaragua	1.8	-12.3	-17.5	-17.2	-9.9	-17.3	-2.0	-9.0	-5.8	1.9	10.8	-19.6	-12.6	-14.9	-0.9	-3.4

Host country Home country	Algeria	Argentina	Australia	Austria	Azerbaijan	Belgium	Bolivia	Brazil	Bulgaria	Cambodia	Cameroon	Canada	Chile	China	Colombia	Croatia
Norway	33.6	14.9	-42.7	-41.5	21.9	-37.1	29.8	9.1	8.2	33.7	42.6	-45.7	-27.2	16.9	24.8	2.3
Pakistan	1.6	-4.3	-9.5	-9.2	-6.5	-9.2	5.6	-0.9	2.3	4.4	8.0	-11.5	-4.5	-7.2	7.2	4.7
Panama	9.9	-8.9	-25.6	-25.3	-1.8	-25.3	6.1	-14.7	-13.9	9.9	18.9	-27.6	-20.7	-6.9	1.0	-11.4
Paraguay	0.3	-10.8	-16.0	-15.7	-11.4	-15.7	-0.9	-7.5	-4.3	0.3	9.3	-18.1	-11.1	-13.7	0.6	-1.8
Poland	20.4	1.6	-36.1	-35.8	8.7	-35.8	16.6	-4.2	-5.0	20.4	29.4	-38.2	-31.2	3.7	11.5	-11.0
Portugal	22.1	3.3	-37.8	-37.5	10.3	-37.5	18.3	-2.5	-3.4	22.1	31.0	-39.8	-32.8	5.3	13.2	-9.3
Qatar	19.1	0.3	-34.8	-34.5	7.4	-34.6	15.3	-5.4	-6.3	19.2	28.1	-36.9	-29.9	2.4	10.3	-12.2
Romania	11.0	-7.8	-26.7	-26.4	-0.7	-26.4	7.2	-13.6	-14.4	11.0	20.0	-28.8	-21.8	-5.7	2.2	-12.5
Russian Federation	-0.6	-9.9	-15.1	-14.8	-12.1	-14.8	0.0	-6.6	-3.4	-0.6	8.4	-17.1	-10.2	-12.8	1.5	-0.9
Rwanda	7.4	-11.4	-23.1	-22.8	-4.3	-22.8	3.6	-14.6	-11.4	7.4	16.4	-25.2	-18.2	-9.3	-1.5	-8.9
Saudi Arabia	4.9	-13.9	-20.6	-20.3	-6.8	-20.3	1.1	-12.1	-8.9	4.9	13.9	-22.7	-15.7	-11.9	-4.0	-6.4
Senegal	6.5	-12.3	-22.2	-21.9	-5.2	-21.9	2.7	-13.7	-10.5	6.5	15.5	-24.3	-17.3	-10.3	-2.4	-8.0
Serbia	7.7	-11.1	-23.4	-23.1	-4.0	-23.1	3.9	-14.9	-11.7	7.7	16.7	-25.5	-18.5	-9.1	-1.2	-9.2
Seychelles	12.0	-6.8	-27.7	-27.4	0.3	-27.4	8.2	-12.6	-13.4	12.0	21.0	-29.7	-22.8	-4.8	3.1	-13.5
Sierra Leone	-0.4	-10.2	-15.4	-15.1	-12.1	-15.1	-0.3	-6.8	-3.6	-0.3	8.6	-17.4	-10.4	-13.1	1.3	-1.2
Singapore	30.0	11.2	-45.7	-45.1	18.3	-40.7	26.2	5.4	4.6	30.0	39.0	-47.8	-30.8	13.3	21.2	-1.4
Slovenia	20.6	1.9	-36.4	-36.1	8.9	-36.1	16.9	-3.9	-4.8	20.7	29.6	-38.4	-31.4	3.9	11.8	-10.7
South Africa	12.2	-6.6	-27.9	-27.6	0.4	-27.6	8.4	-12.4	-13.3	12.2	21.1	-29.9	-22.9	-4.6	3.3	-13.7
Spain	20.1	1.3	-35.8	-35.5	8.4	-35.5	16.3	-4.5	-5.3	20.1	29.1	-37.8	-30.9	3.3	11.2	-11.3
Sweden	33.5	14.8	-42.8	-41.6	21.8	-37.2	29.8	9.0	8.1	33.6	42.5	-45.8	-27.2	16.8	24.7	2.2
Switzerland	32.6	13.8	-43.8	-42.6	20.9	-38.1	28.8	8.0	7.1	32.6	41.6	-46.7	-28.2	15.8	23.7	1.2
Tunisia	5.1	-13.6	-20.9	-20.6	-6.6	-20.6	1.3	-12.3	-9.1	5.2	14.1	-22.9	-15.9	-11.6	-3.7	-6.7
Turkey	8.0	-10.8	-23.7	-23.4	-3.7	-23.4	4.2	-15.2	-12.0	8.0	17.0	-25.8	-18.8	-8.8	-0.9	-9.5
Ukraine	-0.7	-9.9	-15.1	-14.7	-12.1	-14.8	0.0	-6.5	-3.3	-0.6	8.3	-17.1	-10.1	-12.8	1.6	-0.9
United Arab Emirates	17.6	-1.2	-33.3	-33.0	5.9	-33.0	13.8	-7.0	-7.8	17.6	26.6	-35.4	-28.4	0.9	8.7	-13.8
United Kingdom	28.0	9.3	-43.8	-43.5	16.3	-42.7	24.3	3.5	2.6	28.1	37.0	-45.8	-32.7	11.3	19.2	-3.3
United States	25.5	6.7	-41.2	-40.9	13.8	-40.9	21.7	0.9	0.1	25.5	34.5	-43.3	-35.3	8.8	16.6	-5.9
Uruguay	19.6	0.8	-35.3	-35.0	7.8	-35.0	15.8	-5.0	-5.9	19.6	28.5	-37.3	-30.3	2.8	10.7	-11.8
Venezuela	4.2	-1.7	-6.9	-6.6	-3.9	-6.7	8.2	1.6	4.8	6.9	10.5	-9.0	-2.0	-4.7	9.7	7.2
Zimbabwe	4.3	-1.6	-6.8	-6.5	-3.8	-6.5	8.3	1.8	5.0	7.1	10.7	-8.8	-1.8	-4.5	9.9	7.4

Host country Home country	Denmark	Ecuador	Egypt	Finland	France	Germany	Greece	Iceland	India	Iran, Islamic Rep.	Ireland	Israel	Italy	Japan	Jordan	Korea, Rep.
Algeria	-11.4	-3.6	2.6	-21.4	-13.0	-15.6	-0.7	-12.2	-6.6	1.0	-15.5	0.8	-2.7	-14.7	-7.3	-10.7
Argentina	-17.8	-4.1	9.1	-27.8	-19.4	-22.1	-7.1	-18.6	-13.0	7.5	-22.0	-5.6	-9.2	-21.1	-13.7	-17.1
Australia	-44.0	22.1	35.2	-54.0	-34.6	-45.6	0.8	-42.3	12.8	33.6	-44.1	-6.1	-6.4	-40.3	6.9	-21.2
Austria	-43.5	21.6	34.8	-53.5	-35.0	-46.0	0.4	-42.8	12.4	33.2	-44.5	-6.5	-6.8	-40.7	6.5	-21.7
Azerbaijan	-13.2	-5.4	4.4	-23.2	-14.8	-17.4	-2.5	-14.0	-8.4	2.8	-17.3	-1.0	-4.5	-16.5	-9.1	-12.5
Belgium	-41.3	19.4	32.6	-51.3	-37.2	-45.6	-1.8	-42.1	10.2	31.0	-45.5	-8.7	-9.0	-43.0	4.3	-23.9
Bolivia	-15.3	-6.7	6.5	-25.3	-16.9	-19.5	-4.6	-16.1	-10.5	4.9	-19.4	-3.1	-6.6	-18.6	-11.2	-14.6
Brazil	-22.4	0.4	13.6	-32.4	-24.0	-26.6	-11.7	-23.2	-8.8	12.0	-26.5	-10.2	-13.7	-25.7	-14.7	-21.7
Bulgaria	-24.4	2.5	15.6	-34.4	-26.0	-28.6	-13.7	-25.2	-6.8	14.1	-28.6	-12.2	-15.8	-27.7	-12.6	-23.7
Cambodia	-12.7	-4.9	4.0	-22.7	-14.4	-17.0	-2.0	-13.6	-7.9	2.4	-16.9	-0.6	-4.1	-16.1	-8.7	-12.1
Cameroon	-10.1	-2.2	2.0	-20.1	-11.7	-14.3	0.6	-10.9	-5.3	-0.3	-14.2	2.1	-1.4	-13.4	-6.0	-9.4
Canada	-44.4	22.5	35.7	-54.4	-34.1	-45.1	1.3	-41.9	13.3	34.1	-43.6	-5.6	-5.9	-39.8	7.4	-20.8
Chile	-38.7	16.8	29.9	-48.7	-39.9	-42.9	-4.5	-39.5	7.5	28.3	-42.8	-11.4	-11.7	-42.0	1.6	-26.5
China	-15.3	-6.6	6.6	-25.3	-17.0	-19.6	-4.6	-16.1	-10.5	5.0	-19.5	-3.1	-6.7	-18.7	-11.2	-14.6
Colombia	-18.6	-3.4	9.8	-28.5	-20.2	-22.8	-7.9	-19.4	-12.6	8.2	-22.7	-6.4	-9.9	-21.9	-14.5	-17.9
Croatia	-28.6	6.7	19.8	-38.6	-30.2	-32.8	-14.6	-29.4	-2.6	18.3	-32.7	-16.4	-20.0	-31.9	-8.4	-27.9
Denmark	N.A	25.0	38.2	-56.9	-31.6	-42.6	3.8	-39.4	15.8	36.6	-41.2	-3.1	-3.4	-37.3	9.9	-18.3
Ecuador	-14.9	N.A	6.1	-24.9	-16.5	-19.1	-4.2	-15.7	-10.1	4.5	-19.0	-2.7	-6.2	-18.2	-10.8	-14.2
Egypt	-10.4	-2.6	N.A	-20.4	-12.0	-14.6	0.3	-11.2	-5.6	0.0	-14.5	1.8	-1.7	-13.7	-6.3	-9.7
Finland	-46.0	25.9	39.1	N.A	-30.7	-41.7	4.7	-38.5	16.7	37.5	-40.3	-2.2	-2.5	-36.5	10.8	-17.4
France	-38.5	16.5	29.7	-48.4	N.A	-42.7	-4.7	-39.3	7.3	28.1	-42.6	-11.6	-11.9	-41.8	1.4	-26.8
Germany	-42.7	20.7	33.9	-52.6	-35.9	N.A	-0.5	-43.5	11.5	32.3	-45.4	-7.4	-7.7	-41.6	5.6	-22.6
Greece	-26.9	5.0	18.2	-36.9	-28.6	-31.2	N.A	-27.7	-4.2	16.6	-31.1	-14.7	-18.3	-30.3	-10.1	-26.2
Iceland	-42.7	20.8	34.0	-52.7	-35.8	-46.8	-0.4	N.A	11.6	32.4	-45.3	-7.3	-7.6	-41.5	5.7	-22.5
India	-18.0	-3.9	9.2	-28.0	-19.6	-22.2	-7.3	-18.8	N.A	7.6	-22.1	-5.8	-9.3	-21.3	-13.9	-17.3
Iran, Islamic Rep.	-7.5	0.3	4.5	-17.5	-9.1	-11.7	3.2	-8.3	-2.7	N.A	-11.6	4.7	1.1	-10.8	-3.4	-6.8
Ireland	-42.0	20.0	33.2	-52.0	-36.6	-46.2	-1.2	-42.8	10.8	31.6	N.A	-8.1	-8.4	-42.3	4.9	-23.3
Israel	-31.1	9.2	22.4	-41.1	-32.8	-35.4	-12.0	-31.9	0.0	20.8	-35.3	N.A	-19.2	-34.5	-5.9	-30.4
Italy	-29.5	7.6	20.7	-39.5	-31.1	-33.7	-13.7	-30.3	-1.7	19.1	-33.6	-17.3	N.A	-32.8	-7.6	-28.8
Japan	-40.5	18.5	31.7	-50.5	-38.1	-44.7	-2.7	-41.3	9.3	30.1	-44.6	-9.6	-9.9	N.A	3.4	-24.8
Jordan	-20.6	-1.4	11.8	-30.6	-22.2	-24.8	-9.9	-21.4	-10.6	10.2	-24.7	-8.4	-11.9	-23.9	N.A	-19.9
Korea, Rep.	-32.9	11.0	24.2	-42.9	-34.6	-37.2	-10.2	-33.8	1.8	22.6	-37.1	-17.1	-17.4	-36.3	-4.1	N.A
Kuwait	-21.8	-0.2	13.0	-31.7	-23.4	-26.0	-11.0	-22.6	-9.4	11.4	-25.9	-9.6	-13.1	-25.1	-15.3	-21.1
Lebanon	-13.0	-5.1	4.2	-22.9	-14.6	-17.2	-2.3	-13.8	-8.2	2.6	-17.1	-0.8	-4.3	-16.3	-8.9	-12.3
Libya	-2.3	5.5	9.7	-12.3	-4.0	-6.6	8.4	-3.1	2.5	2.3	-6.5	9.9	6.3	-5.7	1.8	-1.6
Malaysia	-28.0	6.1	19.3	-38.0	-29.6	-32.3	-15.1	-28.8	-3.1	17.7	-32.2	-15.8	-19.4	-31.3	-9.0	-27.3
Mexico	-20.6	-1.3	11.8	-30.6	-22.2	-24.8	-9.9	-21.4	-10.6	10.2	-24.7	-8.4	-11.9	-23.9	-16.5	-19.9
Morocco	-18.0	-3.9	9.3	-28.0	-19.7	-22.3	-7.3	-18.9	-13.1	7.7	-22.2	-5.9	-9.4	-21.4	-14.0	-17.4
Netherlands	-45.6	23.7	36.8	-55.6	-33.0	-44.0	2.4	-40.7	14.4	35.2	-42.5	-4.5	-4.8	-38.7	8.5	-19.6
New Zealand	-46.6	25.4	38.5	-57.3	-31.3	-42.3	4.1	-39.0	16.1	36.9	-40.8	-2.8	-3.1	-37.0	10.2	-17.9
Nicaragua	-15.5	-6.4	6.7	-25.5	-17.1	-19.7	-4.8	-16.3	-10.7	5.2	-19.7	-3.3	-6.9	-18.8	-11.4	-14.8

Host country Home country	Denmark	Ecuador	Egypt	Finland	France	Germany	Greece	Iceland	India	Iran, Islamic Rep.	Ireland	Israel	Italy	Japan	Jordan	Korea, Rep.
Norway	-46.5	25.4	38.6	-57.3	-31.2	-42.2	4.2	-39.0	16.2	37.0	-40.7	-2.7	-3.0	-36.9	10.3	-17.9
Pakistan	-7.4	0.4	4.6	-17.4	-9.1	-11.7	3.3	-8.3	-2.6	-2.8	-11.6	4.7	1.2	-10.8	-3.4	-6.8
Panama	-23.6	1.6	14.8	-33.5	-25.2	-27.8	-12.8	-24.4	-7.6	13.2	-27.7	-11.4	-14.9	-26.9	-13.5	-22.9
Paraguay	-14.0	-6.2	5.2	-24.0	-15.6	-18.2	-3.3	-14.8	-9.2	3.6	-18.1	-1.8	-5.3	-17.3	-9.9	-13.3
Poland	-34.1	12.2	25.3	-44.1	-35.7	-38.3	-9.1	-34.9	2.9	23.7	-38.2	-16.0	-16.3	-37.4	-3.0	-31.1
Portugal	-35.7	13.8	27.0	-45.7	-37.4	-40.0	-7.4	-36.6	4.6	25.4	-39.9	-14.3	-14.6	-39.1	-1.3	-29.5
Qatar	-32.8	10.9	24.0	-42.8	-34.4	-37.0	-10.3	-33.6	1.6	22.5	-37.0	-17.3	-17.5	-36.1	-4.2	-32.1
Romania	-24.7	2.8	15.9	-34.7	-26.3	-28.9	-14.0	-25.5	-6.5	14.3	-28.8	-12.5	-16.0	-28.0	-12.4	-24.0
Russian Federation	-13.1	-5.2	4.3	-23.0	-14.7	-17.3	-2.3	-13.9	-8.3	2.7	-17.2	-0.9	-4.4	-16.4	-9.0	-12.4
Rwanda	-21.1	-0.8	12.3	-31.1	-22.7	-25.3	-10.4	-21.9	-10.1	10.7	-25.2	-8.9	-12.4	-24.4	-16.0	-20.4
Saudi Arabia	-18.6	-3.4	9.8	-28.6	-20.2	-22.8	-7.9	-19.4	-12.6	8.2	-22.7	-6.4	-9.9	-21.9	-14.5	-17.9
Senegal	-20.2	-1.8	11.4	-30.2	-21.8	-24.4	-9.5	-21.0	-11.0	9.8	-24.3	-8.0	-11.5	-23.5	-16.1	-19.5
Serbia	-21.4	-0.6	12.6	-31.4	-23.0	-25.6	-10.7	-22.2	-9.8	11.0	-25.5	-9.2	-12.7	-24.7	-15.7	-20.7
Seychelles	-25.7	3.7	16.9	-35.6	-27.3	-29.9	-14.9	-26.5	-5.5	15.3	-29.8	-13.5	-17.0	-29.0	-11.4	-25.0
Sierra Leone	-13.3	-5.5	4.6	-23.3	-15.0	-17.6	-2.6	-14.1	-8.5	3.0	-17.5	-1.1	-4.7	-16.7	-9.3	-12.7
Singapore	-43.7	21.8	34.9	-53.7	-34.9	-45.9	0.5	-42.6	12.5	33.3	-44.4	-6.4	-6.7	-40.6	6.6	-21.5
Slovenia	-34.3	12.4	25.6	-44.3	-36.0	-38.6	-8.8	-35.2	3.2	24.0	-38.5	-15.7	-16.0	-37.7	-2.7	-30.9
South Africa	-25.8	3.9	17.1	-35.8	-27.5	-30.1	-15.1	-26.7	-5.3	15.5	-30.0	-13.7	-17.2	-29.2	-11.2	-25.2
Spain	-33.8	11.8	25.0	-43.7	-35.4	-38.0	-9.4	-34.6	2.6	23.4	-37.9	-16.3	-16.6	-37.1	-3.3	-31.5
Sweden	-46.6	25.3	38.5	-57.2	-31.3	-42.3	4.1	-39.1	16.1	36.9	-40.8	-2.8	-3.1	-37.0	10.2	-18.0
Switzerland	-46.2	24.3	37.5	-56.2	-32.3	-43.3	3.1	-40.1	15.1	35.9	-41.8	-3.8	-4.1	-38.0	9.2	-19.0
Tunisia	-18.8	-3.1	10.1	-28.8	-20.5	-23.1	-8.1	-19.6	-12.3	8.5	-23.0	-6.6	-10.2	-22.2	-14.7	-18.1
Turkey	-21.7	-0.3	12.9	-31.6	-23.3	-25.9	-11.0	-22.5	-9.5	11.3	-25.8	-9.5	-13.0	-25.0	-15.4	-21.0
Ukraine	-13.0	-5.2	4.3	-23.0	-14.6	-17.3	-2.3	-13.8	-8.2	2.7	-17.2	-0.8	-4.4	-16.4	-8.9	-12.3
United Arab Emirates	-31.3	9.3	22.5	-41.3	-32.9	-35.5	-11.9	-32.1	0.1	20.9	-35.4	-18.8	-19.1	-34.6	-5.8	-30.6
United Kingdom	-41.7	19.8	33.0	-51.7	-36.8	-46.0	-1.4	-42.5	10.6	31.4	-45.9	-8.3	-8.6	-42.5	4.7	-23.5
United States	-39.2	17.3	30.4	-49.2	-39.4	-43.4	-4.0	-40.0	8.0	28.8	-43.3	-10.9	-11.2	-42.5	2.1	-26.0
Uruguay	-33.2	11.3	24.5	-43.2	-34.9	-37.5	-9.9	-34.1	2.1	22.9	-37.4	-16.8	-17.1	-36.6	-3.8	-32.0
Venezuela	-4.9	2.9	7.1	-14.9	-6.5	-9.1	5.8	-5.7	-0.1	-0.2	-9.1	7.3	3.7	-8.2	-0.8	-4.2
Zimbabwe	-4.7	3.1	7.3	-14.7	-6.4	-9.0	6.0	-5.6	0.1	-0.1	-8.9	7.4	3.9	-8.1	-0.7	-4.1

Host country Home country	Kuwait	Lebanon	Libya	Mexico	Morocco	Netherlands	New Zealand	Nicaragua	Norway	Pakistan	Panama	Paraguay	Poland	Portugal	Qatar	Romania
Algeria	-12.1	4.0	9.3	-3.0	-6.3	-15.2	-18.6	0.5	-16.3	12.0	-12.5	0.5	-2.8	-9.6	-24.2	0.1
Argentina	-18.5	7.3	15.7	-9.4	-12.7	-21.6	-25.0	-1.3	-22.7	18.5	-19.0	1.8	-9.3	-16.0	-30.6	-6.3
Australia	-0.2	33.5	41.9	11.2	13.0	-47.7	-51.2	24.8	-48.9	44.6	-4.3	28.0	-15.6	-25.7	-34.4	6.1
Austria	-0.7	33.0	41.5	10.8	12.5	-47.3	-50.7	24.4	-48.5	44.2	-4.7	27.5	-16.1	-26.2	-34.8	5.7
Azerbaijan	-13.9	2.6	11.1	-4.7	-8.1	-16.9	-20.4	-1.3	-18.1	13.8	-14.3	-1.2	-4.6	-11.4	-26.0	-1.7
Belgium	-2.9	30.8	39.2	8.6	10.3	-45.1	-48.5	22.2	-46.2	42.0	-6.9	25.3	-18.3	-28.4	-37.1	3.5
Bolivia	-16.0	4.7	13.2	-6.8	-10.2	-19.0	-22.5	-3.4	-20.2	15.9	-16.4	-0.8	-6.7	-13.5	-28.0	-3.8
Brazil	-21.9	11.8	20.3	-10.4	-8.6	-26.1	-29.6	3.2	-27.3	23.0	-23.5	6.3	-13.8	-20.6	-35.2	-10.9
Bulgaria	-19.8	13.9	22.3	-8.4	-6.6	-28.2	-31.6	5.3	-29.3	25.0	-23.9	8.4	-15.8	-22.6	-37.2	-12.9
Cambodia	-13.5	2.7	10.7	-4.3	-7.6	-16.5	-20.0	-0.9	-17.7	13.4	-13.9	-0.8	-4.2	-10.9	-25.5	-1.2
Cameroon	-10.8	5.3	8.0	-1.6	-5.0	-13.8	-17.3	1.8	-15.0	10.7	-11.2	1.9	-1.5	-8.3	-22.9	1.4
Canada	0.2	33.9	42.4	11.7	13.4	-48.2	-51.7	25.3	-49.4	45.1	-3.8	28.4	-15.2	-25.2	-33.9	6.6
Chile	-5.5	28.2	36.6	5.9	7.7	-42.5	-45.9	19.6	-43.6	39.3	-9.6	22.7	-20.9	-31.0	-39.7	0.8
China	-16.0	4.8	13.3	-6.9	-10.2	-19.1	-22.5	-3.5	-20.3	16.0	-16.5	-0.7	-6.8	-13.5	-28.1	-3.8
Colombia	-19.3	8.0	16.5	-10.1	-12.4	-22.3	-25.8	-0.6	-23.5	19.2	-19.7	2.5	-10.0	-16.8	-31.3	-7.1
Croatia	-15.6	18.1	26.5	-4.2	-2.4	-32.4	-35.8	9.5	-33.5	29.2	-19.7	12.6	-20.0	-26.8	-41.4	-9.3
Denmark	2.7	36.4	44.9	14.2	15.9	-48.0	-54.1	27.8	-51.9	47.6	-1.3	30.9	-12.7	-22.8	-31.5	9.1
Ecuador	-15.6	4.3	12.8	-6.4	-9.8	-18.6	-22.1	-3.0	-19.8	15.5	-16.0	-1.2	-6.3	-13.1	-27.7	-3.4
Egypt	-11.1	5.0	8.3	-2.0	-5.3	-14.2	-17.6	1.5	-15.3	11.0	-11.5	1.5	-1.8	-8.6	-23.2	1.1
Finland	3.6	37.3	45.8	15.1	16.8	-47.1	-53.9	28.7	-51.8	48.5	-0.4	31.8	-11.8	-21.9	-30.6	10.0
France	-5.8	27.9	36.4	5.7	7.5	-42.2	-45.7	19.3	-43.4	39.1	-9.8	22.4	-21.1	-31.2	-39.9	0.6
Germany	-1.6	32.1	40.6	9.9	11.7	-46.4	-49.9	23.5	-47.6	43.3	-5.6	26.6	-16.9	-27.0	-35.7	4.8
Greece	-17.3	16.4	24.9	-5.8	-4.1	-30.7	-34.1	7.8	-31.9	27.6	-21.3	10.9	-18.4	-25.1	-39.7	-10.9
Iceland	-1.5	32.2	40.7	10.0	11.7	-46.5	-50.0	23.6	-47.7	43.4	-5.5	26.7	-16.9	-26.9	-35.6	4.9
India	-18.7	7.5	15.9	-9.6	-12.9	-21.7	-25.2	-1.2	-22.9	18.6	-19.1	2.0	-9.4	-16.2	-30.8	-6.5
Iran, Islamic Rep.	-8.2	7.9	5.4	0.9	-2.4	-11.3	-14.7	4.4	-12.4	8.1	-8.6	4.4	1.1	-5.7	-20.3	4.0
Ireland	-2.3	31.4	39.9	9.2	11.0	-45.7	-49.2	22.8	-46.9	42.6	-6.3	25.9	-17.6	-27.7	-36.4	4.1
Israel	-13.1	20.6	29.1	-1.6	0.1	-34.9	-38.3	12.0	-36.1	31.8	-17.1	15.1	-22.6	-29.3	-43.9	-6.7
Italy	-14.7	19.0	27.4	-3.3	-1.5	-33.3	-36.7	10.4	-34.4	30.1	-18.8	13.5	-20.9	-27.7	-42.3	-8.4
Japan	-3.8	29.9	38.4	7.7	9.5	-44.2	-47.7	21.3	-45.4	41.1	-7.8	24.4	-19.1	-29.2	-37.9	2.6
Jordan	-21.3	10.0	18.5	-12.1	-10.4	-24.3	-27.8	1.4	-25.5	21.2	-21.7	4.5	-12.0	-18.8	-33.3	-9.1
Korea, Rep.	-11.3	22.4	30.9	0.2	1.9	-36.7	-40.2	13.8	-37.9	33.6	-15.3	16.9	-24.4	-31.2	-45.4	-4.9
Kuwait	N.A	11.2	19.7	-11.0	-9.2	-25.5	-29.0	2.6	-26.7	22.4	-22.9	5.7	-13.2	-20.0	-34.5	-10.2
Lebanon	-13.7	N.A	10.9	-4.5	-7.9	-16.7	-20.2	-1.1	-17.9	13.6	-14.1	-1.0	-4.4	-11.2	-25.7	-1.5
Libya	-3.0	13.1	N.A	6.1	2.8	-6.1	-9.5	9.5	-7.3	13.2	-3.5	9.6	6.2	-0.5	-15.1	9.2
Malaysia	-16.2	17.5	25.9	-4.7	-3.0	-31.8	-35.2	8.9	-32.9	28.7	-20.3	12.0	-19.5	-26.2	-40.8	-9.9
Mexico	-21.3	10.1	18.5	N.A	-10.4	-24.4	-27.8	1.5	-25.5	21.2	-21.7	4.6	-12.0	-18.8	-33.4	-9.1
Morocco	-18.8	7.5	16.0	-9.6	N.A	-21.8	-25.3	-1.1	-23.0	18.7	-19.2	2.0	-9.5	-16.3	-30.8	-6.5
Netherlands	1.4	35.1	43.5	12.8	14.6	N.A	-52.8	26.4	-50.5	46.2	-2.7	29.6	-14.0	-24.1	-32.8	7.7
New Zealand	3.1	36.8	45.2	14.5	16.3	-47.6	N.A	28.1	-52.2	47.9	-1.0	31.3	-12.3	-22.4	-31.1	9.4
Nicaragua	-16.2	5.0	13.4	-7.1	-10.4	-19.3	-22.7	N.A	-20.4	16.1	-16.6	-0.5	-6.9	-13.7	-28.3	-4.0

Host country Home country	Kuwait	Lebanon	Libya	Mexico	Morocco	Netherlands	New Zealand	Nicaragua	Norway	Pakistan	Panama	Paraguay	Poland	Portugal	Qatar	Romania
Norway	3.1	36.8	45.3	14.6	16.3	-47.6	-54.4	28.2	N.A	48.0	-0.9	31.3	-12.3	-22.4	-31.1	9.5
Pakistan	-8.2	8.0	5.4	1.0	-2.4	-11.2	-14.7	4.4	-12.4	N.A	-8.6	4.5	1.1	-5.6	-20.2	4.1
Panama	-20.7	13.0	21.5	-9.2	-7.4	-27.3	-30.8	4.4	-28.5	24.2	N.A	7.5	-15.0	-21.8	-36.3	-12.0
Paraguay	-14.7	3.5	11.9	-5.6	-8.9	-17.7	-21.2	-2.1	-18.9	14.6	-15.1	N.A	-5.4	-12.2	-26.8	-2.5
Poland	-10.1	23.6	32.0	1.3	3.1	-37.8	-41.3	14.9	-39.0	34.7	-14.2	18.1	N.A	-32.3	-44.3	-3.8
Portugal	-8.5	25.2	33.7	3.0	4.7	-39.5	-43.0	16.6	-40.7	36.4	-12.5	19.7	-23.9	N.A	-42.6	-2.1
Qatar	-11.4	22.3	30.7	0.0	1.8	-36.6	-40.0	13.7	-37.7	33.5	-15.5	16.8	-24.2	-31.0	N.A	-5.1
Romania	-19.5	14.2	22.6	-8.1	-6.3	-28.4	-31.9	5.6	-29.6	25.3	-23.6	8.7	-16.1	-22.9	-37.5	N.A
Russian Federation	-13.8	2.5	11.0	-4.6	-8.0	-16.8	-20.3	-1.2	-18.0	13.7	-14.2	-1.1	-4.5	-11.3	-25.8	-1.5
Rwanda	-21.8	10.6	19.0	-11.7	-9.9	-24.8	-28.3	1.9	-26.0	21.7	-22.2	5.1	-12.5	-19.3	-33.9	-9.6
Saudi Arabia	-19.3	8.0	16.5	-10.1	-12.4	-22.3	-25.8	-0.6	-23.5	19.2	-19.7	2.5	-10.0	-16.8	-31.4	-7.1
Senegal	-20.9	9.6	18.1	-11.7	-10.8	-23.9	-27.4	1.0	-25.1	20.8	-21.3	4.1	-11.6	-18.4	-32.9	-8.7
Serbia	-22.1	10.8	19.3	-11.4	-9.6	-25.1	-28.6	2.2	-26.3	22.0	-22.5	5.3	-12.8	-19.6	-34.1	-9.9
Seychelles	-18.6	15.1	23.6	-7.1	-5.3	-29.4	-32.9	6.5	-30.6	26.3	-22.6	9.6	-17.1	-23.9	-38.4	-12.2
Sierra Leone	-14.1	2.8	11.3	-4.9	-8.2	-17.1	-20.5	-1.5	-18.3	14.0	-14.5	-1.4	-4.8	-11.5	-26.1	-1.8
Singapore	-0.5	33.2	41.6	10.9	12.7	-47.5	-50.9	24.6	-48.6	44.3	-4.6	27.7	-15.9	-26.0	-34.7	5.8
Slovenia	-9.9	23.8	32.3	1.6	3.3	-38.1	-41.6	15.2	-39.3	35.0	-13.9	18.3	-25.3	-32.5	-44.0	-3.5
South Africa	-18.4	15.3	23.8	-6.9	-5.2	-29.6	-33.1	6.7	-30.8	26.5	-22.4	9.8	-17.3	-24.1	-38.6	-12.0
Spain	-10.5	23.2	31.7	1.0	2.8	-37.5	-41.0	14.6	-38.7	34.4	-14.5	17.7	-25.2	-32.0	-44.6	-4.1
Sweden	3.0	36.7	45.2	14.5	16.2	-47.7	-54.4	28.1	-52.2	47.9	-1.0	31.2	-12.4	-22.5	-31.1	9.4
Switzerland	2.0	35.7	44.2	13.5	15.2	-48.7	-53.5	27.1	-51.2	46.9	-2.0	30.2	-13.4	-23.4	-32.1	8.4
Tunisia	-19.6	8.3	16.8	-10.4	-12.2	-22.6	-26.0	-0.3	-23.8	19.5	-20.0	2.8	-10.3	-17.0	-31.6	-7.3
Turkey	-22.4	11.1	19.6	-11.1	-9.3	-25.4	-28.9	2.5	-26.6	22.3	-22.8	5.6	-13.1	-19.9	-34.4	-10.2
Ukraine	-13.7	2.5	11.0	-4.6	-7.9	-16.8	-20.2	-1.2	-18.0	13.7	-14.2	-1.1	-4.5	-11.2	-25.8	-1.5
United Arab Emirates	-13.0	20.7	29.2	-1.5	0.3	-35.0	-38.5	12.1	-36.2	31.9	-17.0	15.2	-22.7	-29.5	-44.1	-6.6
United Kingdom	-2.5	31.2	39.7	9.0	10.7	-45.5	-48.9	22.6	-46.7	42.4	-6.5	25.7	-17.9	-28.0	-36.6	3.9
United States	-5.1	28.7	37.1	6.4	8.2	-42.9	-46.4	20.0	-44.1	39.8	-9.1	23.2	-20.4	-30.5	-39.2	1.3
Uruguay	-11.0	22.7	31.2	0.5	2.2	-37.0	-40.5	14.1	-38.2	33.9	-15.0	17.2	-24.7	-31.5	-45.1	-4.6
Venezuela	-5.6	10.5	2.8	3.5	0.2	-8.7	-12.1	7.0	-9.8	10.6	-6.0	7.0	3.7	-3.1	-17.7	6.6
Zimbabwe	-5.5	10.7	2.7	3.7	0.3	-8.5	-12.0	7.1	-9.7	10.8	-5.9	7.2	3.8	-3.0	-17.5	6.8

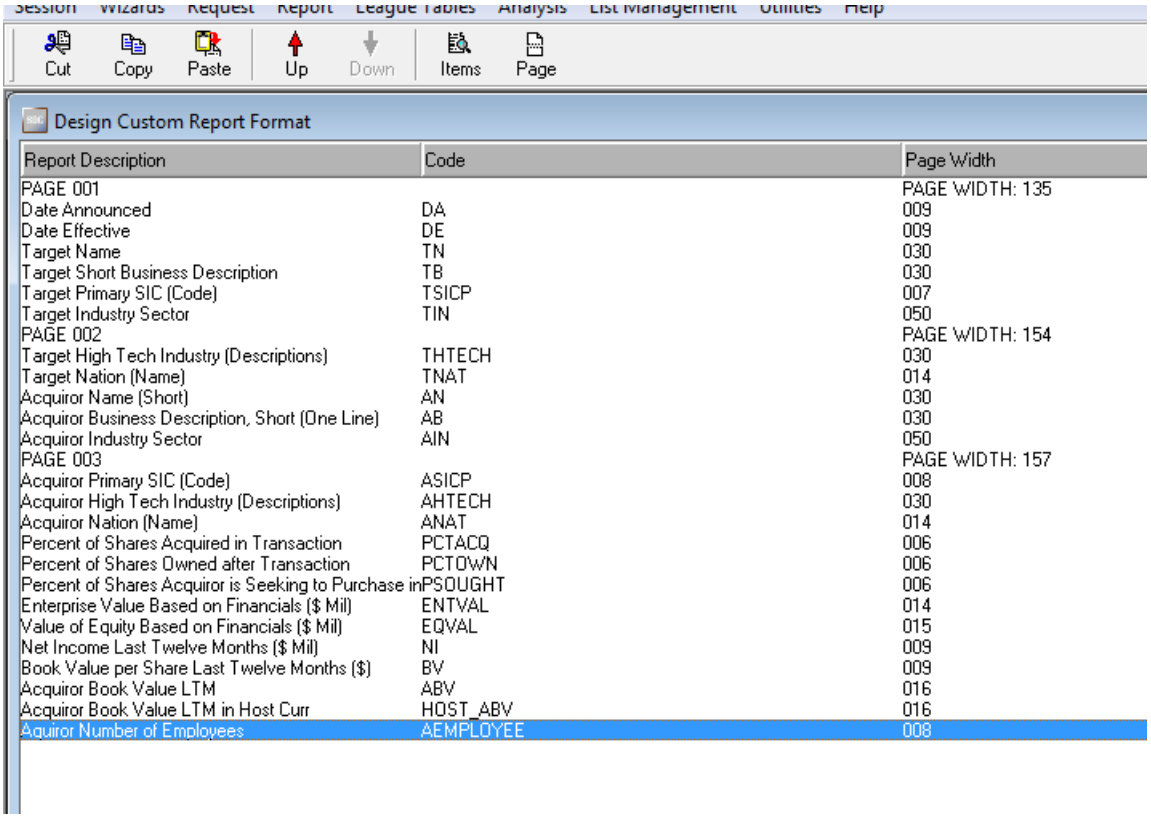
Host country Home country	Russian Federation	Rwanda	Saudi Arabia	Senegal	Serbia	Seychelles	Sierra Leone	Singapore	Slovenia	South Africa	Spain	Sweden	Switzerland	Tunisia	Turkey	Ukraine
Algeria	-2.5	-2.3	-20.3	5.6	7.4	-3.3	10.2	-21.0	-7.5	-7.1	-5.9	-18.4	-18.8	-2.8	-4.3	-4.1
Argentina	0.6	-8.8	-26.7	-0.8	1.0	-9.8	12.8	-27.4	-13.9	-13.6	-12.3	-24.8	-25.2	-9.2	-10.7	-0.9
Australia	26.8	10.9	-2.1	20.7	20.0	0.7	38.9	-53.0	-20.8	-3.5	-18.0	-51.0	-51.4	14.9	7.7	25.2
Austria	26.3	10.4	-2.5	20.2	19.6	0.3	38.5	-53.1	-21.2	-3.9	-18.4	-50.5	-51.0	14.5	7.3	24.8
Azerbaijan	-4.1	-4.1	-22.1	3.9	5.6	-5.1	8.5	-22.7	-9.3	-8.9	-7.6	-20.1	-20.6	-4.6	-6.1	-5.6
Belgium	24.1	8.2	-4.7	18.0	17.4	-2.0	36.3	-50.9	-23.5	-6.1	-20.7	-48.3	-48.7	12.3	5.1	22.6
Bolivia	-2.0	-6.2	-24.2	1.8	3.5	-7.2	10.2	-24.8	-11.4	-11.0	-9.7	-22.2	-22.7	-6.7	-8.2	-3.5
Brazil	5.1	-10.7	-23.7	-0.9	-1.6	-14.3	17.3	-31.9	-18.5	-18.1	-16.8	-29.3	-29.8	-6.7	-13.9	3.6
Bulgaria	7.2	-8.7	-21.7	1.1	0.4	-16.4	19.4	-34.0	-20.5	-20.1	-18.9	-31.4	-31.8	-4.7	-11.9	5.6
Cambodia	-3.9	-3.7	-21.7	4.3	6.0	-4.7	8.9	-22.3	-8.8	-8.5	-7.2	-19.7	-20.2	-4.1	-5.7	-5.5
Cameroon	-1.2	-1.0	-19.0	7.0	8.7	-2.0	11.6	-19.6	-6.2	-5.8	-4.5	-17.0	-17.5	-1.5	-3.0	-2.8
Canada	27.2	11.3	-1.6	21.2	20.5	1.2	39.4	-52.5	-20.3	-3.0	-17.5	-51.4	-51.9	15.4	8.2	25.7
Chile	21.5	5.6	-7.4	15.4	14.7	-4.6	33.7	-48.3	-26.1	-8.7	-23.3	-45.7	-46.1	9.6	2.4	19.9
China	-1.9	-6.3	-24.2	1.7	3.5	-7.3	10.3	-24.9	-11.4	-11.1	-9.8	-22.3	-22.8	-6.7	-8.3	-3.4
Colombia	1.3	-9.5	-27.5	-1.5	0.2	-10.5	13.5	-28.1	-14.7	-14.3	-13.0	-25.5	-26.0	-10.0	-11.5	-0.2
Croatia	11.4	-4.5	-17.5	5.3	4.6	-14.7	23.6	-38.2	-24.7	-18.8	-23.1	-35.6	-36.0	-0.5	-7.7	9.8
Denmark	29.7	13.8	0.9	23.6	23.0	3.7	41.9	-50.0	-17.8	-0.5	-15.0	-53.9	-53.0	17.9	10.7	28.2
Ecuador	-2.4	-5.8	-23.8	2.2	3.9	-6.8	9.8	-24.4	-11.0	-10.6	-9.3	-21.8	-22.3	-6.3	-7.8	-3.9
Egypt	-1.5	-1.3	-19.3	6.6	8.4	-2.3	11.2	-20.0	-6.5	-6.1	-4.9	-17.4	-17.8	-1.8	-3.3	-3.1
Finland	30.6	14.7	1.8	24.5	23.9	4.5	42.8	-49.1	-17.0	0.4	-14.2	-53.6	-52.1	18.8	11.6	29.1
France	21.2	5.3	-7.6	15.2	14.5	-4.8	33.4	-48.0	-26.3	-9.0	-23.5	-45.4	-45.9	9.4	2.2	19.7
Germany	25.4	9.5	-3.4	19.4	18.7	-0.6	37.6	-52.2	-22.1	-4.8	-19.3	-49.6	-50.1	13.6	6.4	23.9
Greece	9.7	-6.2	-19.1	3.6	3.0	-16.3	21.9	-36.5	-23.0	-20.5	-21.4	-33.9	-34.4	-2.1	-9.3	8.2
Iceland	25.5	9.6	-3.3	19.5	18.8	-0.5	37.7	-52.3	-22.0	-4.7	-19.2	-49.7	-50.2	13.7	6.5	24.0
India	0.8	-8.9	-26.9	-0.9	0.8	-9.9	12.9	-27.5	-14.1	-13.7	-12.4	-25.0	-25.4	-9.4	-10.9	-0.8
Iran, Islamic Rep.	1.4	1.5	-16.4	9.5	11.3	0.5	14.1	-17.1	-3.6	-3.2	-2.0	-14.5	-14.9	1.1	-0.4	-0.2
Ireland	24.7	8.9	-4.1	18.7	18.0	-1.3	36.9	-51.5	-22.8	-5.5	-20.0	-48.9	-49.4	12.9	5.7	23.2
Israel	13.9	-2.0	-14.9	7.8	7.2	-12.2	26.1	-40.7	-27.2	-16.3	-25.6	-38.1	-38.6	2.1	-5.1	12.4
Italy	12.3	-3.6	-16.6	6.2	5.5	-13.8	24.5	-39.1	-25.6	-17.9	-24.0	-36.5	-36.9	0.4	-6.8	10.7
Japan	23.2	7.4	-5.6	17.2	16.5	-2.8	35.4	-50.0	-24.3	-7.0	-21.5	-47.4	-47.9	11.4	4.2	21.7
Jordan	3.3	-11.5	-25.5	-2.7	-1.8	-12.5	15.5	-30.1	-16.7	-16.3	-15.0	-27.5	-28.0	-8.5	-13.5	1.8
Korea, Rep.	15.7	-0.2	-13.1	9.7	9.0	-10.3	27.9	-42.5	-29.0	-14.5	-27.4	-39.9	-40.4	3.9	-3.3	14.2
Kuwait	4.5	-11.4	-24.3	-1.5	-2.2	-13.7	16.7	-31.3	-17.8	-17.5	-16.2	-28.7	-29.2	-7.3	-14.5	3.0
Lebanon	-4.1	-3.9	-21.9	4.1	5.8	-4.9	8.7	-22.5	-9.1	-8.7	-7.4	-19.9	-20.4	-4.4	-5.9	-5.7
Libya	6.6	6.7	-11.2	14.7	16.5	5.7	19.3	-11.9	1.6	1.9	3.2	-9.3	-9.8	6.3	4.8	5.0
Malaysia	10.8	-5.1	-18.0	4.7	4.1	-15.3	23.0	-37.6	-24.1	-19.4	-22.5	-35.0	-35.4	-1.0	-8.2	9.3
Mexico	3.4	-11.5	-25.5	-2.7	-1.8	-12.5	15.6	-30.2	-16.7	-16.3	-15.0	-27.6	-28.0	-8.5	-13.5	1.8
Morocco	0.8	-9.0	-27.0	-1.0	0.7	-10.0	13.0	-27.6	-14.1	-13.8	-12.5	-25.0	-25.5	-9.4	-11.0	-0.7
Netherlands	28.4	12.5	-0.5	22.3	21.6	2.3	40.5	-51.4	-19.2	-1.9	-16.4	-52.6	-53.0	16.5	9.3	26.8
New Zealand	30.0	14.2	1.2	24.0	23.3	4.0	42.2	-49.7	-17.5	-0.2	-14.7	-54.2	-52.6	18.2	11.0	28.5
Nicaragua	-1.7	-6.5	-24.4	1.5	3.3	-7.5	10.5	-25.1	-11.6	-11.2	-10.0	-22.5	-22.9	-6.9	-8.4	-3.3

Host country Home country	Russian Federation	Rwanda	Saudi Arabia	Senegal	Serbia	Seychelles	Sierra Leone	Singapore	Slovenia	South Africa	Spain	Sweden	Switzerland	Tunisia	Turkey	Ukraine
Norway	30.1	14.2	1.3	24.0	23.4	4.1	42.3	-49.6	-17.4	-0.1	-14.6	-54.1	-52.6	18.3	11.1	28.6
Pakistan	1.4	1.6	-16.4	9.6	11.3	0.6	14.2	-17.0	-3.5	-3.2	-1.9	-14.4	-14.9	1.2	-0.4	-0.2
Panama	6.3	-9.6	-22.5	0.3	-0.4	-15.5	18.5	-33.1	-19.7	-19.3	-18.0	-30.5	-31.0	-5.5	-12.7	4.8
Paraguay	-3.2	-4.9	-22.9	3.1	4.8	-5.9	8.9	-23.5	-10.1	-9.7	-8.4	-21.0	-21.4	-5.4	-6.9	-4.8
Poland	16.8	1.0	-12.0	10.8	10.1	-9.2	29.0	-43.6	-30.2	-13.4	-27.9	-41.0	-41.5	5.0	-2.2	15.3
Portugal	18.5	2.6	-10.3	12.4	11.8	-7.5	30.7	-45.3	-29.0	-11.7	-26.2	-42.7	-43.2	6.7	-0.5	17.0
Qatar	15.6	-0.3	-13.3	9.5	8.9	-10.5	27.8	-42.4	-28.9	-14.6	-27.3	-39.8	-40.2	3.7	-3.5	14.0
Romania	7.5	-8.4	-21.4	1.4	0.7	-16.6	19.6	-34.3	-20.8	-20.4	-19.1	-31.7	-32.1	-4.4	-11.6	5.9
Russian Federation	N.A	-4.0	-22.0	4.0	5.7	-5.0	8.6	-22.6	-9.2	-8.8	-7.5	-20.0	-20.5	-4.5	-6.0	-5.7
Rwanda	3.8	N.A	-25.0	-2.2	-2.3	-13.0	16.0	-30.6	-17.2	-16.8	-15.5	-28.0	-28.5	-8.0	-14.0	2.3
Saudi Arabia	1.3	-9.5	N.A	-1.5	0.2	-10.5	13.5	-28.1	-14.7	-14.3	-13.0	-25.5	-26.0	-10.0	-11.5	-0.2
Senegal	2.9	-11.1	-25.9	N.A	-1.4	-12.1	15.1	-29.7	-16.3	-15.9	-14.6	-27.1	-27.6	-8.9	-13.1	1.4
Serbia	4.1	-11.7	-24.7	-1.9	N.A	-13.3	16.3	-30.9	-17.5	-17.1	-15.8	-28.3	-28.8	-7.7	-14.3	2.6
Seychelles	8.4	-7.5	-20.4	2.4	1.7	N.A	20.6	-35.2	-21.8	-21.4	-20.1	-32.6	-33.1	-3.4	-10.6	6.9
Sierra Leone	-3.9	-4.3	-22.3	3.7	5.4	-5.3	N.A	-22.9	-9.4	-9.1	-7.8	-20.3	-20.8	-4.7	-6.3	-5.4
Singapore	26.5	10.6	-2.4	20.4	19.7	0.4	38.7	N.A	-21.1	-3.7	-18.3	-50.7	-51.1	14.6	7.4	24.9
Slovenia	17.1	1.2	-11.7	11.0	10.4	-8.9	29.3	-43.9	N.A	-13.1	-27.6	-41.3	-41.8	5.3	-1.9	15.6
South Africa	8.6	-7.3	-20.2	2.5	1.9	-17.4	20.8	-35.4	-21.9	N.A	-20.3	-32.8	-33.3	-3.2	-10.4	7.1
Spain	16.5	0.6	-12.3	10.5	9.8	-9.5	28.7	-43.3	-29.9	-13.7	N.A	-40.7	-41.2	4.7	-2.5	15.0
Sweden	30.0	14.1	1.2	23.9	23.3	4.0	42.2	-49.7	-17.5	-0.2	-14.7	N.A	-52.7	18.2	11.0	28.5
Switzerland	29.0	13.1	0.2	23.0	22.3	3.0	41.2	-50.7	-18.5	-1.2	-15.7	-53.2	N.A	17.2	10.0	27.5
Tunisia	1.6	-9.8	-27.2	-1.8	0.0	-10.8	13.8	-28.4	-14.9	-14.6	-13.3	-25.8	-26.3	N.A	-11.8	0.1
Turkey	4.4	-11.4	-24.4	-1.6	-2.3	-13.6	16.6	-31.2	-17.8	-17.4	-16.1	-28.6	-29.1	-7.4	N.A	2.9
Ukraine	-4.1	-4.0	-21.9	4.0	5.8	-5.0	8.6	-22.6	-9.1	-8.8	-7.5	-20.0	-20.5	-4.4	-5.9	N.A
United Arab Emirates	14.0	-1.8	-14.8	8.0	7.3	-12.0	26.2	-40.8	-27.4	-16.2	-25.7	-38.2	-38.7	2.2	-5.0	12.5
United Kingdom	24.5	8.6	-4.3	18.4	17.8	-1.5	36.7	-51.3	-23.0	-5.7	-20.2	-48.7	-49.2	12.7	5.5	23.0
United States	21.9	6.1	-6.9	15.9	15.2	-4.1	34.1	-48.7	-25.6	-8.3	-22.8	-46.1	-46.6	10.1	2.9	20.4
Uruguay	16.0	0.1	-12.8	9.9	9.3	-10.0	28.2	-42.8	-29.3	-14.2	-27.7	-40.2	-40.7	4.2	-3.0	14.5
Venezuela	4.0	4.1	-13.8	12.1	13.9	3.1	16.7	-14.5	-1.0	-0.6	0.6	-11.9	-12.3	3.7	2.2	2.4
Zimbabwe	4.1	4.3	-13.7	12.3	14.0	3.3	16.9	-14.3	-0.8	-0.5	0.8	-11.7	-12.2	3.9	2.3	2.5

Host country Home country	United Arab Emirates	United Kingdom	United States	Uruguay	Venezuela	Zimbabwe
Algeria	-21.4	-16.3	-14.7	-8.4	11.6	18.7
Argentina	-27.8	-22.7	-21.1	-14.8	18.0	25.1
Australia	-28.6	-44.4	-37.7	-19.5	44.2	51.3
Austria	-29.0	-44.8	-38.1	-19.9	43.7	50.9
Azerbaijan	-23.2	-18.0	-16.5	-10.1	13.4	20.5
Belgium	-31.2	-46.2	-40.3	-22.1	41.5	48.7
Bolivia	-25.3	-20.1	-18.6	-12.2	15.5	22.6
Brazil	-32.4	-27.2	-25.7	-19.3	22.6	29.7
Bulgaria	-34.4	-29.3	-27.7	-21.4	24.6	31.7
Cambodia	-22.7	-17.6	-16.0	-9.7	12.9	20.1
Cameroon	-20.1	-14.9	-13.4	-7.0	10.3	17.4
Canada	-28.1	-43.9	-37.2	-19.0	44.6	51.8
Chile	-33.9	-43.6	-42.0	-24.8	38.9	46.0
China	-25.3	-20.2	-18.6	-12.3	15.5	22.7
Colombia	-28.6	-23.4	-21.9	-15.5	18.8	25.9
Croatia	-38.6	-33.5	-31.9	-25.6	28.8	35.9
Denmark	-25.6	-41.4	-34.7	-16.5	47.1	54.3
Ecuador	-24.9	-19.7	-18.2	-11.8	15.1	22.2
Egypt	-20.4	-15.3	-13.7	-7.4	10.6	17.7
Finland	-24.7	-40.5	-33.8	-15.6	48.0	55.2
France	-34.1	-43.3	-41.8	-25.0	38.7	45.8
Germany	-29.9	-45.7	-39.0	-20.8	42.9	50.0
Greece	-36.9	-31.8	-30.2	-23.9	27.1	34.3
Iceland	-29.8	-45.6	-38.9	-20.7	42.9	50.1
India	-28.0	-22.8	-21.3	-15.0	18.2	25.3
Iran, Islamic Rep.	-17.5	-12.4	-10.8	-4.5	7.7	14.8
Ireland	-30.6	-46.4	-39.7	-21.5	42.2	49.3
Israel	-41.1	-36.0	-34.4	-28.1	31.3	38.5
Italy	-39.5	-34.4	-32.8	-26.5	29.7	36.8
Japan	-32.1	-45.3	-41.2	-23.0	40.7	47.8
Jordan	-30.6	-25.4	-23.9	-17.5	20.8	27.9
Korea, Rep.	-39.6	-37.8	-36.3	-29.9	33.2	40.3
Kuwait	-31.8	-26.6	-25.1	-18.7	22.0	29.1
Lebanon	-23.0	-17.8	-16.3	-9.9	13.2	20.3
Libya	-12.3	-7.2	-5.6	0.7	7.7	14.5
Malaysia	-38.0	-32.9	-31.3	-25.0	28.2	35.3
Mexico	-30.6	-25.5	-23.9	-17.6	20.8	27.9
Morocco	-28.1	-22.9	-21.4	-15.0	18.2	25.4
Netherlands	-27.0	-42.8	-36.1	-17.9	45.8	52.9
New Zealand	-25.3	-41.1	-34.4	-16.2	47.5	54.6
Nicaragua	-25.5	-20.4	-18.8	-12.5	15.7	22.8

Host country Home country	United Arab Emirates	United Kingdom	United States	Uruguay	Venezuela	Zimbabwe
Norway	-25.2	-41.0	-34.3	-16.1	47.5	54.7
Pakistan	-17.4	-12.3	-10.7	-4.4	7.6	14.8
Panama	-33.6	-28.4	-26.9	-20.5	23.8	30.9
Paraguay	-24.0	-18.8	-17.3	-11.0	14.2	21.3
Poland	-38.5	-38.9	-37.4	-29.4	34.3	41.4
Portugal	-36.8	-40.6	-39.0	-27.7	35.9	43.1
Qatar	-39.7	-37.7	-36.1	-29.8	33.0	40.1
Romania	-34.7	-29.6	-28.0	-21.7	24.9	32.0
Russian Federation	-23.1	-17.9	-16.4	-10.0	13.3	20.4
Rwanda	-31.1	-25.9	-24.4	-18.0	21.3	28.4
Saudi Arabia	-28.6	-23.4	-21.9	-15.5	18.8	25.9
Senegal	-30.2	-25.0	-23.5	-17.1	20.4	27.5
Serbia	-31.4	-26.2	-24.7	-18.3	21.6	28.7
Seychelles	-35.7	-30.5	-29.0	-22.6	25.9	33.0
Sierra Leone	-23.3	-18.2	-16.6	-10.3	13.5	20.7
Singapore	-28.9	-44.7	-38.0	-19.8	43.9	51.0
Slovenia	-38.2	-39.2	-37.6	-29.1	34.5	41.7
South Africa	-35.8	-30.7	-29.1	-22.8	26.0	33.2
Spain	-38.8	-38.6	-37.1	-29.7	34.0	41.1
Sweden	-25.3	-41.1	-34.4	-16.2	47.4	54.6
Switzerland	-26.3	-42.1	-35.4	-17.2	46.4	53.6
Tunisia	-28.8	-23.7	-22.1	-15.8	19.0	26.2
Turkey	-31.7	-26.5	-25.0	-18.6	21.9	29.0
Ukraine	-23.0	-17.9	-16.3	-10.0	13.2	20.4
United Arab Emirates	N.A	-36.1	-34.6	-28.2	31.5	38.6
United Kingdom	-30.8	N.A	-39.9	-21.7	41.9	49.1
United States	-33.4	-44.0	N.A	-24.3	39.4	46.5
Uruguay	-39.3	-38.1	-36.5	N.A	33.4	40.6
Venezuela	-14.9	-9.8	-8.2	-1.9	N.A	12.2
Zimbabwe	-14.8	-9.6	-8.0	-1.7	5.3	N.A

10.4 Lists of variables extracted from SDC (screenshot from SDC)



Report Description	Code	Page Width
PAGE 001		PAGE WIDTH: 135
Date Announced	DA	009
Date Effective	DE	009
Target Name	TN	030
Target Short Business Description	TB	030
Target Primary SIC (Code)	TSICP	007
Target Industry Sector	TIN	050
PAGE 002		PAGE WIDTH: 154
Target High Tech Industry (Descriptions)	THTECH	030
Target Nation (Name)	TNAT	014
Acquiror Name (Short)	AN	030
Acquiror Business Description, Short (One Line)	AB	030
Acquiror Industry Sector	AIN	050
PAGE 003		PAGE WIDTH: 157
Acquiror Primary SIC (Code)	ASICP	008
Acquiror High Tech Industry (Descriptions)	AHTECH	030
Acquiror Nation (Name)	ANAT	014
Percent of Shares Acquired in Transaction	PCTACQ	006
Percent of Shares Owned after Transaction	PCTOWN	006
Percent of Shares Acquiror is Seeking to Purchase in	PSOUGHT	006
Enterprise Value Based on Financials ($ Mil)	ENTVAL	014
Value of Equity Based on Financials ($ Mil)	EQVAL	015
Net Income Last Twelve Months ($ Mil)	NI	009
Book Value per Share Last Twelve Months ($)	BV	009
Acquiror Book Value LTM	ABV	016
Acquiror Book Value LTM in Host Curr	HOST_ABV	016
Aquiror Number of Employees	AEMPLOYEE	008

10.5 SDC Platinum, a snapshot of extracted data

Source: Thomson Reuters Date: 03/10/2015

Date Announced	Date Effective	Target Name	Target Short Business Description	Target Primary SIC Code	Target Industry Sector	High Tech Industry	Target Nation	Acquiror Name
03/01/01	03/01/01	Dial/Henkel Mexico SA de CV	Mnfr,whl soap	2841	Soaps, Cosmetics, and Personal-Care Products	Primary Business not Hi-Tech	Mexico	Henkel AG & Co KGaA
04/01/01	04/01/01	Honeywell EMS de Mexico SA	Mnfr circuit assemblies	3672	Electronic and Electrical Equipment	Printed Circuit Boards	Mexico	C-Mac Industries Inc
05/01/01	04/04/01	Grupo Iusacell SA de CV	Pvd telecommunications svcs	4813	Telecommunications	Cellular Communications	Mexico	Vodafone Group PLC
05/01/01		Tecnologias NEC de Mexico	Mnfr computers,commun systems	3571	Computer and Office Equipment	Micro-Computers(PCs) Mainframes & Super Computers Portable Computers Disk Drives	Mexico	Seeking Buyer
09/01/01		San Juan Capestrano Hospital	Own,op hospitals	8062	Health Services	Primary Business not Hi-Tech	Puerto Rico	Universal Health Services Inc
11/01/01	25/01/01	Calizas,Vulica,Vulcan/ICA	Own,op limestone quarries	1499	Mining	Primary Business not Hi-Tech	Mexico	Vulcan Materials Co
12/01/01	12/01/01	Wal-Mart de Mexico SA de CV	Own,op variety,gen msde stores	5331	Retail Trade-General Merchandise and Apparel	Primary Business not Hi-Tech	Mexico	Wal-Mart de Mexico SA de CV
18/01/01	27/02/02	Seguros Banamex Aegon	Insurance company	6311	Insurance	Primary Business not Hi-Tech	Mexico	Banacci
19/01/01	19/01/01	Operadora Mexican Aeropuertos	Own,op airports	4581	Air Transportation and Shipping	Primary Business not Hi-Tech	Mexico	Aeroports de Paris
20/01/01	20/01/01	Operadora Mexican Aeropuertos	Own,op airports	4581	Air Transportation and Shipping	Primary Business not Hi-Tech	Mexico	Aeroports de Paris
23/01/01	13/12/01	Embotelladora Argos SA	Own,op bottling plants	3085	Rubber and Miscellaneous Plastic Products	Primary Business not Hi-Tech	Mexico	Embotelladoras Arca SAB de CV

Source: Thomson Reuters Date: 03/10/2015

Date Announced	Date Effective	Target Name	Target Short Business Description	Target Primary SIC Code	Target Industry Sector	High Tech Industry	Target Nation	Acquiror Name
23/01/01	13/12/01	Proyeccion Corporativa	Own,op bottling plants	3221	Stone, Clay, Glass, and Concrete Products	Primary Business not Hi-Tech	Mexico	Empresas El Carmen SA de CV
24/01/01	31/12/02	Grupo Situr-Hotel Package	Own,op hotels	7011	Hotels and Casinos	Primary Business not Hi-Tech	Mexico	AMX Resort Holdings LLC
24/01/01	18/09/01	Grupo Industrial Phillips SA	Mnfr,whl locks	3429	Metal and Metal Products	Primary Business not Hi-Tech	Mexico	Assa Abloy AB
25/01/01	25/01/01	Deportivo Toluca	Soccer team	7941	Amusement and Recreation Services	Primary Business not Hi-Tech	Mexico	Valentin Diez Morodo
25/01/01	25/01/01	Editorial Ecafsa	Publish educational material	2731	Printing, Publishing, and Allied Services	Primary Business not Hi-Tech	Mexico	Thomson Learning Inc
25/01/01	30/01/01	Empaques Ponderosa SA de CV	Investment holding company	6799	Investment & Commodity Firms,Dealers,Exchanges	Primary Business not Hi-Tech	Mexico	Empaques Ponderosa SA de CV
01/02/01	01/02/01	El Asesor de Mexico	Magazine	2721	Printing, Publishing, and Allied Services	Primary Business not Hi-Tech	Mexico	Crain Communications Inc
01/02/01	01/02/01	El Asesor de Monterrey	Weekly magazine	2721	Printing, Publishing, and Allied Services	Primary Business not Hi-Tech	Mexico	Crain Communications Inc
01/02/01	01/02/01	Internet Velocidad	Magazine	2721	Printing, Publishing, and Allied Services	Primary Business not Hi-Tech	Mexico	Crain Communications Inc

Acquiror Short Business Description	Acquiror Industry Sector	Acquiror Primary SIC Code	High Tech Industry	Acquiror Nation	% of Shares Acq.	% Owned After Trans-action	% sought	Enterprise Value ($mil)	Equity Value ($mil)	Target Book Value Per Share LTM (US$)	Acquiror Book Value LTM ($ mil)	Acquiror Book Value LTM (host mil)	Acquiror Number of Employees
Manufacture,wholesale consumer chemicals	Soaps, Cosmetics, and Personal-Care Products	2844	Primary Business not Hi-Tech	Germany	50.00	100.0	50.0	37.800	37.800				
Mnfr microelectronics	Business Services	7371	Semiconductors	Canada	100.00	100.0	100.0	np	np		16.65	24.96	
Provide wireless telecommunication services	Telecommunications	4812	Cellular Communications Satellite Communications	United Kingdom	34.50	34.5	34.5	3,492.864	2821.449	9.2	6.7	4.21	29,465
Seeking buyer	Investment & Commodity Firms,Dealers,Exchanges	6799	Primary Business not Hi-Tech	Unknown			100.0	np	np				
Own,operate hospitals,centers	Health Services	8062	Healthcare Services	United States			100.0	np	np		11.98	11.98	25,600
Mnfr,whl constr materials	Mining	1422	Primary Business not Hi-Tech	United States	50.00	100.0	50.0	242.2	242.2		14.56	14.56	9,315
Own,op variety,gen msde stores	Retail Trade-General Merchandise and Apparel	5331	Primary Business not Hi-Tech	Mexico	7.00	7.0	7.0	5,594.300	6805.957	.2			
Bank	Commercial Banks, Bank Holding Companies	6000	Primary Business not Hi-Tech	Mexico	49.00	100.0	49.0	np	np		.95	9.16	
Operate airports	Air Transportation and Shipping	4581	Primary Business not Hi-Tech	France	11.75	13.8	11.8	97.022	97.022				
Operate airports	Air Transportation and Shipping	4581	Primary Business not Hi-Tech	France	11.75	25.5	11.8	np	np				
Produce,wholesale soft drinks	Food and Kindred Products	2086	Primary Business not Hi-Tech	Mexico	78.92	99.7	79.2	787.458	731.176	.9			
Own,op bottling plants	Stone, Clay, Glass, and Concrete Products	3221	Primary Business not Hi-Tech	Mexico			100.0	np	np				
Pvd resort dvlp consulting svc	Hotels and Casinos	7011	Primary Business not Hi-Tech	United States	100.00	100.0	100.0	np	np				
Mnfr,whl mechanical locks	Metal and Metal Products	3429	Robotics	Sweden	100.00	100.0	100.0	np	np		1.08	10.15	16,881
Individual	Investment & Commodity Firms,Dealers,Exchanges	6799	Primary Business not Hi-Tech	Mexico	100.00	100.0	100.0	np	np				
Pvd educ info svcs	Printing, Publishing, and Allied Services	2731	Applications Software(Business	United States	100.00	100.0	100.0	np	np				
Investment holding company	Investment & Commodity Firms,Dealers,Exchanges	6799	Primary Business not Hi-Tech	Mexico	3.11	3.1	3.1	351.241	286.222	.6			

Acquiror Short Business Description	Acquiror Industry Sector	Acquiror Primary SIC Code	High Tech Industry	Acquiror Nation	% of Shares Acq.	% Owned After Trans-action	% sought	Enterprise Value ($mil)	Equity Value ($mil)	Target Book Value Per Share LTM (US$)	Acquiror Book Value LTM ($ mil)	Acquiror Book Value LTM (host mil)	Acquiror Number of Employees
Publish trade magazine	Printing, Publishing, and Allied Services	2721	Primary Business not Hi-Tech	United States	100.00	100.0	100.0	np	np				
Publish trade magazine	Printing, Publishing, and Allied Services	2721	Primary Business not Hi-Tech	United States	100.00	100.0	100.0	np	np				
Publish trade magazine	Printing, Publishing, and Allied Services	2721	Primary Business not Hi-Tech	United States	100.00	100.0	100.0	np	np				
Manufacture lime,dolomite	Stone, Clay, Glass, and Concrete Products	3274	Primary Business not Hi-Tech	Mexico	30.00	30.0	30.0	np	np				

10.6 Calculated variance for each unit of Relative Institutional Challenge index

Relative Institutional Challenge index unit	Variance of Percentage of Shares	Relative Institutional Challenge index unit	Variance of Percentage of Shares	Relative Institutional Challenge index unit	Variance of Percentage of Shares acquired
-58	514.601272	**-23**	1146.398137	**12**	1330.120184
-57	567.5746857	**-22**	1349.070983	**13**	1213.930386
-56	1173.487058	**-21**	1278.695342	**14**	1047.782358
-55	634.5219013	**-20**	1269.267885	**15**	1200.298132
-54	889.1841965	**-19**	1257.474459	**16**	1227.86403
-53	746.8489466	**-18**	1415.089413	**17**	1134.325634
-52	893.5023396	**-17**	1286.315183	**18**	1357.151189
-51	896.6236834	**-16**	1096.823801	**19**	1403.881625
-50	918.9984361	**-15**	1203.530006	**20**	1159.497601
-49	835.396011	**-14**	1308.002346	**21**	1163.580947
-48	938.3965012	**-13**	1146.364447	**22**	1425.699457
-47	778.8190585	**-12**	1209.379399	**23**	1473.741985
-46	788.2969793	**-11**	975.5531281	**24**	1390.792849
-45	640.9944618	**-10**	1120.723015	**25**	1215.574982
-44	787.5225659	**-9**	1043.986203	**26**	1349.93194
-43	751.4778834	**-8**	1045.829851	**27**	1523.322283
-42	748.4903875	**-7**	1065.627706	**28**	1458.121781
-41	770.9534262	**-6**	1323.889216	**29**	1337.829141
-40	960.8631459	**-5**	1187.302052	**30**	1087.778764
-39	1063.25485	**-4**	1069.788321	**31**	1162.721805
-38	705.1153683	**-3**	1051.105859	**32**	1337.578574
-37	866.9965793	**-2**	1357.251349	**33**	1437.336582
-36	1039.950802	**-1**	1021.170137	**34**	1364.06889
-35	1153.855827	**0**	1112.72403	**35**	150
-34	674.01859	**1**	1249.04764	**36**	951.71872
-33	936.7577312	**2**	1254.62856	**37**	1192.166667
-32	1025.808876	**3**	1064.843986	**38**	0
-31	1109.474806	**4**	1210.589326	**39**	0
-30	1482.928014	**5**	1118.520848	**47**	0
-29	1283.032062	**6**	1428.289798	**52**	0
-28	1005.750132	**7**	1171.646345	**60**	56.46333333
-27	1369.670128	**8**	1321.471711	**47**	0
-26	1105.349164	**9**	1268.423685	**52**	0
-25	1371.7515	**10**	1370.876365	**60**	56.46333333
-24	1309.647118	**11**	1217.282092		

10.7 Statistical models, results from Process procedure:

```
Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Release 2.12.1 **************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2013). www.guilford.com/p/hayes3

**************************************************************************
Model = 1
    Y = DV
    X = IV
    M = MD_dicho

Sample size
       4996

**************************************************************************
Outcome: DV

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .2405      .0578   905.3173   102.1709     3.0000  4992.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant    81.5806      .4271   190.9938      .0000    80.7433    82.4180
MD_dicho      .2962     1.2298      .2409      .8097    -2.1147     2.7071
IV           -.3136      .0184   -17.0730      .0000     -.3496     -.2776
int_1        -.1559      .0553    -2.8174      .0049     -.2643     -.0474

Interactions:

 int_1    IV          X     MD_dicho

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0015     7.9378     1.0000  4992.0000      .0049

**************************************************************************

Conditional effect of X on Y at values of the moderator(s):
   MD_dicho     Effect         se          t          p       LLCI       ULCI
     -.8549     -.1803      .0517    -3.4858      .0005     -.2817     -.0789
      .1451     -.3362      .0196   -17.1459      .0000     -.3746     -.2978

Values for quantitative moderators are the mean and plus/minus one SD from
mean.
Values for dichotomous moderators are the two values of the moderator.
```

```
******************** ANALYSIS NOTES AND WARNINGS *************************

Level of confidence for all confidence intervals in output:
    95.00

NOTE: The following variables were mean centered prior to analysis:
 IV       MD_dicho

NOTE: Some cases were deleted due to missing data.  The number of such cases
was:
  10361

------ END MATRIX -----
```

10.8 Bootstrapping result, the main model

Bootstrap for Coefficients

Model		B	Bootstrap[a] Bias	Std. Error	Sig. (2-tailed)	95% Confidence Interval Lower	Upper
1	(Constant)	79.949	-.021	1.123	.001	77.645	82.138
	ZIV Zscore: Relative Institutional Challenge	-7.781	.000	.466	.001	-8.664	-6.818
	MD_dicho Employees <> 500	.879	.023	1.175	.451	-1.443	3.203
2	(Constant)	80.883	-.034	1.214	.001	78.316	83.183
	ZIV Zscore: Relative Institutional Challenge	-4.431	-.038	1.321	.002	-7.040	-1.855
	MD_dicho Employees <> 500	-.088	.036	1.269	.935	-2.480	2.462
	Interaction1 ZIVxMD_dicho	-3.830	.045	1.415	.007	-6.560	-1.025

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Bootstrap Specifications

Sampling Method	Simple
Number of Samples	1000
Confidence Interval Level	95.0%
Confidence Interval Type	Percentile

10.9 Control effects, results for each major industry group

Parameter Estimates

Dependent Variable: DV

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Intercept	67,020	2,059	32,545	,000	62,983	71,057	,175	32,545	1,000
[industry=Agriculture, Forestry and Fishing]	15,496	6,224	2,490	,013	3,293	27,698	,001	2,490	,702
[industry=Construction]	1,496	4,090	,366	,715	-6,522	9,513	,000	,366	,065
[industry=Finance, Insurance and Real Estate]	-4,382	2,356	-1,860	,063	-9,001	,238	,001	1,860	,460
[industry=Manufacturing]	7,953	2,098	3,791	,000	3,840	12,066	,003	3,791	,966
[industry=Mining]	-3,033	2,755	-1,101	,271	-8,435	2,369	,000	1,101	,196
[industry=Retail Trade]	3,481	3,307	1,053	,293	-3,002	9,965	,000	1,053	,183
[industry=Services]	14,485	2,180	6,645	,000	10,212	18,759	,009	6,645	1,000
[industry=Transportation, Communications, Electric, Gas and Sanitary service]	-2,409	2,558	-,942	,346	-7,424	2,605	,000	,942	,156
[industry=Wholesale Trade]	0[a]	.	.	.	.	.	.	.	.
[MD_Dich=,00]	6,517	2,022	3,224	,001	2,554	10,480	,002	3,224	,897
[MD_Dich=1,00]	0[a]	.	.	.	.	.	.	.	.
IV	-,319	,019	-16,530	,000	-,356	-,281	,052	16,530	1,000
[MD_Dich=,00] * IV	,194	,054	3,564	,000	,087	,300	,003	3,564	,946
[MD_Dich=1,00] * IV	0[a]	.	.	.	.	.	.	.	.

a. This parameter is set to zero because it is redundant.

b. Computed using alpha = ,05